DOCUMENT RESUME

ED 094 742 IR 000 940

AUTHOR	Anderson, Charles R.
TITLE	Alternative Educational Patterns for Career Opportunities: Education, Job Roles, and Upward Mobility. An Investigation of Opportunities at the Pre- and Para-Professional Level in Government Libraries in the Washington, D.C. Area. Final Report.
INSTITUTION	Maryland Univ., College Park. School of Library and Information Services.
SPONS AGENCY	National Agricultural Library (DOA), Washington, D.C.
REPORT NO	DOA-HG-SSOD-FR
PUB DATE	73
NOTE	139p.
AVAILABLE FROM	University of Maryland, Students' Supply Store, College Park, Maryland 20742 ($4.75 plus postage)
EDRS PRICE	MF-$0.75 HC-$6.60 PLUS POSTAGE
DESCRIPTORS	Career Ladders; *Career Opportunities; Community Colleges; Equal Opportunities (Jobs); *Government Libraries; Libraries; *Library Education; *Library Technicians; National Libraries; Surveys
IDENTIFIERS	*District of Columbia; University of Maryland

ABSTRACT

Job roles of preprofessional personnel in Federal libraries in the Washington, D.C. area were studied in March and April of 1973. A literature review showed library technicians to be increasingly important to libraries. Indepth interviews were conducted at 15 libraries concerning staff composition, job descriptions, and educational requirements. Upward staff mobility was found to depend on educational opportunities. Characteristic job descriptions are included, and model curricula are described. A timetable is suggested for an adequate educational program in the Washington area. A bibliography is appended. (PF)

BEST COPY AVAILABLE

ED 094742

ALTERNATIVE EDUCATIONAL PATTERNS FOR CAREER OPPORTUNITIES

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

EDUCATION, JOB ROLES, AND UPWARD MOBILITY:

An investigation of opportunities at the pre- and para-professional level in government libraries in the Washington, D.C. area.

Margaret E. Chisholm - *Project Director*

Charles R. Anderson - *Research Assistant*

1973

College of Library and Information Services
University of Maryland
College Park, Maryland

IR 000 940

BEST COPY AVAILABLE

BEST COPY AVAILABLE

Cooperative Agreement No. 12-03-8-152X
Project No. HG-SSOD

ALTERNATIVE EDUCATIONAL PATTERNS FOR CAREER OPPORTUNITIES:

A cooperative agreement between the University of Maryland and the United States Department of Agriculture, National Agricultural Library

FINAL REPORT

EDUCATION, JOB ROLES, AND UPWARD MOBILITY:

An investigation of opportunities at the pre- and para-professional level in government libraries in the Washington, D.C. area.

Dr. Margaret E. Chisholm - Project Director

Charles R. Anderson - Research Assistant

June, 1973

School of Library and Information Services
University of Maryland
College Park, Maryland

ACKNOWLEDGEMENTS

I would like to thank Mr. John Sherrod, former Director of the National Agricultural Library, for his interest in supporting this project, NAL staff members Veronica LeFebre, Willie R. Jackson, and Arlene Sperber for their assistance in the SOLIT survey, and Alfred Hodina, NAL liaison officer for the project.

I am also indebted to library school faculty members Louis Wilson, W. B. Lukenbill, and Edwin Olson for their helpful advice during the development of the study.

The assistance of Betsy Sharer, Graduate Assistant, was invaluable, and is deeply appreciated. Without the able help of part-time secretary and typist, Kathy Whittier, this report would, of necessity, still be in largely un-readable draft form.

Finally, I wish to thank all the Federal librarians who gave hours of their busy time in participating in interviews, and others, such as Anne Kahl, Department of Labor, for permission to adopt, in large part, the interview guide developed and pretested by the Department of Labor, Ingrid Omdahl, Recruitment Task Force of the Federal Library Committee, and Tom Walker, State Division of Library Development, who both offered advice and provided information during the study.

CRA

TABLE OF CONTENTS

INTRODUCTION 1

Chapter

I. LIBRARY TECHNICIANS - A SUMMARY OF DEVELOPMENTS . . 4

II. LOCAL EMPLOYMENT PATTERNS IN FEDERAL LIBRARIES . . 10

III. JOB ROLES 22

IV. EDUCATIONAL PATTERNS 36

V. CURRICULUM MODELS 49

VI. CONCLUSIONS AND RECOMMENDATIONS. 63

APPENDICES 67

BIBLIOGRAPHICAL NOTE 105

BIBLIOGRAPHIES 107

LIST OF TABLES

Table		Page
1.	Changes in Library Staffing, 1967-1972, by Job Category . .	12
2.	Sex and Race Characteristics by Job Category	13
3.	Reductions and Additions to Staff Positions (end of FY or CY 1972)	14
4.	Educational Background of Present Staff by Job Category (end of FY or CY 1972) . .	17
5.	Sources of Personnel Placed by Job Category (end of FY or CY 1972)	18
6.	Manpower Projections	20
7.	Duties Performed by Solit Members	35
8.	Duties Performed by Library Technician Graduates.	41

LIST OF ILLUSTRATIONS

Figure Page

1. Suggested Career Ladder and Related Training 54

INTRODUCTION

Rationale for study

Currently there is an increased awareness of the need to provide upward mobility for employees in many different employment environments. Emphasis is being placed on the importance of career ladders. In some respects it is far more realistic to consider the concept of career lattices or branching. The descriptive term career ladders indicates one upward path, and this is rather restrictive and inhibiting. The concept of branching on career lattices implies that in each career there are plateaus or decision points and at those points there should be provided alternative job advancements and educational opportunities based on a combination of training and experiences.

The National Agricultural Library and the School of Library and Information Services of the University of Maryland have worked cooperatively on several projects including "An Experimental Educational Program in Library and Information Services." The focus of past efforts have been upon the professional staff. The current research project was initiated by a recognition that an investigation of educational and on-the-job experiences which could be synthesized to provide upward mobility opportunities for all personnel was needed.

Scope

A number of anticipated products were projected in the original research proposal. Time, financial constraints, and a growing understanding of the

magnitude of some of the problems involved forced a narrowing of scope as the project developed. The development of a fully approved plan of articulation among institutions (one of the anticipated products) proved to be impossible given the current confused state of knowledge regarding exact curriculum content and purpose of the various existing programs. A recommendation for a study to collect the data needed to develop such a plan is made at the conclusion of this report. Similarly, while some generally agreed upon perceptions of job roles in Federal libraries were developed, the data needed to make definitive recommendations for job roles would have required a much greater committment of resources than the present project permitted.

This report, therefore, focuses upon the current situation regarding education and man-power needs at the pre-professional level in Federal libraries in this geographical area. It is a "Final" report only in the sense that it represents the best effort of the project team within the time and resource constraints to identify and explore problems and present recommended solutions. It should be considered as merely prolegomena to the needed research in this area.

Format of report

Chapter I presents a narrative summary of the literature and some information on the current status of technician programs. Chapter II reports the results of a survey of local employment patterns including employment needs and opportunities in Federal libraries. Chapter III discusses role definition at the pre-professional level and includes a number of model job descriptions. Chapter IV and V identify and discuss appropriate curriculum and educational programs on the basis of the present state of knowledge

about employer needs. An annotated bibliography, samples of data collection instruments, and appendices are included at the end of this report.

CHAPTER I

LIBRARY TECHNICIANS - A SUMMARY OF DEVELOPMENTS

Professional interest in a middle level of library workers, between clerical and professional, received little serious attention in the literature until the 1960's; although some programs, particularly those training sub-professionals for special libraries, were reported earlier.[1] (149)

When the "Manpower Shortage Crisis" descended upon the library profession, this middle level class of employees was seen by some librarians as a partial solution to the problem. (Various names have been applied to this class of workers - Library Technician, Library Technical Assistant, Library Aide, Library Assistant, Sub-professional assistant, or Library/Media Technical Assistant. With the exception of Library Aide, a term often applied to public library personnel with a Bachelor's degree and non-degree assistants to school librarians, the abbreviation LMTA, although at times incorrect historically, will be used for the other terms throughout this study.) Opinions about the utilization of LMTAs, however, were not unanimous among librarians.(13,16,20,22,24) At the 1965 ALA Midwinter meeting, the Library Education Division Executive Board approved this statement:

> The consensus of Board opinion is that the establishment of courses for the training of library clerks or assistants in junior colleges should not be encouraged. While there is a need for library technicians

---

[1]Numbers in parentheses in this report refer to items in the annotated bibliography pp. 107-129.

> and even though some courses are being given, there appears to be no evidence that they have been successful. It was noted that the Personnel Committee of the New York Library Association has recently recommended against a proposal for the establishment of undergraduate training programs. There are no standards for such courses.[2]

It is worth noting,however, this was a consensual, not a unanimous opinion.[3] A dissenting opinion to this statement was presented by Louis Shores in 1966.(18) The Federal Government recognized the library technician including the possibility of junior college preparation by issuing in 1966 the GS-1411 classification series for "Library Technicians."(74)

A 1968 survey (1) noted the following concerns about LMTAs in the literature:

A. Questions raised about the LMTAs often focused on five problem areas:
   1) LMTAs would become cheap substitutes for librarians and lower the intellectual level of the field;(16,24,37)
   2) no clear distinction existed between job classifications for professionals and non-professionals;
   3) the potential employment market for LMTAs was uncertain, and students were often given unrealistic expectations;(20)
   4) community colleges were beginning to establish programs of uncertain value with no standardization;(24) and,
   5) the community college curriculum would not give students adequate preparation in general education to permit them to work towards a graduate degree in librarianship.(65)

B. Those in favor of the LMTA concept viewed it as an important part of the solution to the manpower shortage.(17) These writers felt that by developing an LMTA class of employees the wasteful use of professional staff

---

[2] LED Newsletter, No. 53 (March, 1965), pp. 2-3.

[3] Personal communication, Dr. W. B. Lukenbill, Jan., 1973.

time would be curtailed,(14,22) and analysis and clarification of professional and non-professional duties would be encouraged.(12) This in turn, it was suggested, might stimulate recruitment of better librarians(22) and upgrade the profession.(128) Comparisons were made to other programs such as medicine which have long recognized a need for various levels of workers. (13,150)

The first significant survey of library technician programs was made in 1965 out of concern for the acute manpower shortage. This survey identified 26 formal programs for library technicians at that time.(15) By 1967, interest in these programs had increased sufficiently to lead to study by an inter-divisional committee of the Library Administration Division and the Library Education Division of ALA. The report of this committee (often referred to as the Deininger Report from its chairman, Dorothy F. Deininger) produced a statement of definition for the sub-professional or technical assistant which was adopted by the Library Administration Division and The Library Education Division at Mid-winter, 1968:

> Library Technical Assistant duties are based on skills required by the Library Clerk, but in addition, a proficiency developed in one or more functional areas or in certain limited phases of library service. Library Technical Assistants will generally follow established procedures which have been developed by Librarians. They work under the supervision of a Librarian and may supervise and direct Library Clerks or clerical staff. In a closely coordinated library system, a Library Technical Assistant may be responsible for a service unit.(26)

Also in 1967, a national conference on library technology was held in Chicago which in turn led to regional workshops, the initiation of a Newsletter, and the formation of the Council on Library Technology (COLT) which met in Toledo, Ohio May 23-25, 1968.(19,32,51,65)

Since the 1965 survey referred to earlier, the number of formal programs offered or planned in community or junior colleges had increased by some 400

per cent by 1971 although the rate of growth in the past two years has been markedly slower than the 1967-1970 period. During the earlier period, 77 new programs were begun; however, in 1971 only seven new programs were developed, and four were planned for 1972. In addition, a number of programs have been discontinued - 29 between 1968 and 1971. Reasons given for this discontinuance in most cases were lack of student enrollment and/or lack of job opportunity.(56) Another view of the growth picture can be seen from a comparison between enrollment data for 1967 and 1970.(30,56) In 1967, 468 full-time students and 1023 part-time students were reported; for 1970, the figures were: 770 full-time and 1,848 part-time. Yet a composite picture of 1967 enrollees indicated the typical program would have thirteen full-time students and twenty-four part-time, while in 1970 a typical program had twelve full-time students and twenty-nine part-time. There are indications of a slight increase in the typical program between 1971 and 1972 in a limited survey taken in 1972. This survey reported a mean enrollment of forty-nine students full and part-time, based on reports from twenty-one institutions.(55) However, data collected in March, 1973 by this investigator suggests, on a very tentative basis, the possibility of some leveling-off, if not a decrease in growth rate.

The current growth status of library technician programs is not directly ascertainable at this time. The Council on Library Technology is beginning a project to gather data for a new edition of the COLT Directory, and a duplication of COLT's efforts in this survey would have been unwarranted. However, California and Texas, as two states which have done considerable work in formalizing their library technology programs, were selected to collect some data on current enrollment, graduations, and placement. One-page forms requesting statistical data only were sent to twenty-two community colleges

in California, and the three colleges in Texas listed by the 1971 COLT Directory as having library technology programs. Replies were received from eight schools in California, and no replies were received from Texas.

Based on data contained in the 1971 COLT Directory, had the eight schools which replied to the above questionnaire been selected by a random sampling operation, there is a 99.9 per cent probability that the difference between the mean enrollment figure for these schools (36.6 - full and part-time) and the mean enrollment for all programs listed in the Directory (36.8) was not due to chance.[4]

Without suggesting that the responses from these eight schools giving data for 1972-73 represent in any valid statististical sense a random sample permitting generalizations about present programs in the U.S., this review merely reports that the mean enrollment for these schools in 1973 was forty-three students, the mean number of graduates was nine, and the placement rate was sixty-eight per cent.

In 1967 the typical program produced five graduates and placed all of them; in 1972 the mean number of graduates was seventeen and only fifty-eight per cent were placed in library technician positions. (Some caution should be exercised in drawing conclusions from these comparisons due to differences in survey techniques and numbers of institutions surveyed.) A 1971 study indicated a placement rate of seventy-seven per cent.(58) Furthermore, while the total enrollment in technical assistant programs in California increased sixteen per cent from 1971 to 1972, in 1973 there was an eighteen per cent decrease, with a mean 1973 enrollment for all California programs of forty-nine.

Since the period of rapid growth in institutions for training LMTAs, a

---

[4] attained t value = 0.012. s.d. for eight schools = 20; population s.d. = 36.3. Mean for all programs calculated from data in 1971 COLT Directory.(57)

number of problems referred to earlier have been addressed by the profession. The Library Education Division of the American Library Association has developed, revised and adopted as official policy criteria for programs in junior and community colleges.(77) Efforts at standarization of programs have been made in several states.(41,88,89,92,95) A number of studies have clarified role identification and task analysis for non-professional employees in libraries.(56,61,63,131,133,135) Problems in the acceptance of library technicians by the working librarian still exist, but given the entire tone of the literature, and the present direction taken by the American Library Association, it does not seem reasonable to postulate a sudden reversal of a trend towards more effective utilization of LMTAs.

Canadian programs, begun in 1966, took a different direction than American programs initially. Three major differences were noted: 1) the Canadian Library Association took a more active part in the development of programs, giving it more influence over content and direction; 2) there was more uniformity in development throughout Canada than in the U.S.; and, 3) there was more concern in Canada for the mobility of graduates and less emphasis on training for local needs only.(118) As noted above, there are indications that the first difference may be reduced in the future which may in turn lead to more uniformity and perhaps, certification of LMTAs.(56)

CHAPTER II

LOCAL EMPLOYMENT PATTERNS IN FEDERAL LIBRARIES

To gain some perspective on current and future manpower situations in Federal libraries in the Washington area, a survey using in-depth personal interviews with library directors was planned. Initially, forty-three libraries were identified (through directory sources) as being of sufficient size to affect manpower trends locally. The smallest library surveyed employed a total of fifteen persons in the categories of librarian, specialist, technician and clerk, while the largest selected had some 4,000 employees.

Of the initial forty-three, eleven libraries were eliminated for various reasons which included mergers with other libraries, incorrect directory entries, and unique library situations. Of the remaining thirty-two, seven libraries refused to participate in the survey, citing lack of time as the major reason. The three National Libraries were considered separately from all other libraries due to the large differences in staff size. In-depth interviews were conducted at fifteen libraries, four libraries provided statistical data only, and the remaining three were not used in the survey due to time constraints. Two of the three National Libraries could not provide any data other than the gross total of employees and the number of library technicians; therefore, the survey focused on the small and medium sized libraries in this area. All libraries were guaranteed complete confidentiality.

Interviews, held during late March and April, 1973, were fairly structured and followed, in general, guidelines provided by the Department of Labor in a nation-wide manpower survey questionnaire. The following list provides an

outline of significant areas covered in interviews:[1]

I. Staffing

A. Numbers

1. 1410 series - Professional Librarians
2. 1412 series - Technical Information Specialists
3. 1411 series - Library Technicians
4. Clerical

B. Sex and race characteristics of employees; changes in sex, race, and age composition of staff over the past five years; factors influencing these changes.

II. Job roles

A. Changes over past five years
B. Anticipated changes over next ten years

III. Educational background and qualifications for employment of staff

IV. Upward mobility and manpower problems

A. Reductions and increases in staff
B. Sources of new staff members

V. Manpower projections

Given the nature of the interviews and the subject matter covered, results, with the exception of hard data supplied in certain categories, are presented in narrative summary form, synthesized and interpreted by the investigator to form coherent pictures of attitudes.

Staffing

The total manpower situation has remained remarkably constant over the past five years, with a net loss in total employment among libraries surveyed amounting to only 0.01 per cent.[2] Within this total, however, several significant changes should be noted which affect the educational programs

---

[1]Base periods used were end of fiscal or calendar years 1972 and 1967.

[2]Includes only one of the three National Libraries for reasons noted earlier.

discussed in other sections of this report. These changes occured in two categories, Technical Information Specialists and Library Technicians, as Table 1 shows:

TABLE I

CHANGES IN LIBRARY STAFFING, 1967-1972, BY JOB CATEGORY[a]

Category	1967	1972	% Increase (+) or Decrease (-)
Librarians	177	194	+10%
Technical Information Specialists	73	46	-37%
Library Technicians	188	220	+17%
Clerks	81	55	-32%
TOTAL	519	515	

[a]In addition to these figures, approximately 562 persons are currently employed in two National Libraries in jobs equivalent to the library technician category out of a total work force of some 4,665 persons. Table includes only one of the three National Libraries.

In addition to the marked drop in utilization of the Technical Information Specialist series, it should be noted that, while the ratio of librarian to clerk has remained very nearly constant at 1:.28, the ratio of librarian to library technician has changed from 1:.97 in 1967 to 1:1.1 in 1972. Technicians are utilized far more extensively in the small or medium sized libraries than in the National libraries. In the small or medium sized

libraries, forty-three per cent of the total work force are in the 1411 series; in the National libraries, only fourteen per cent are reported in this category.

With regard to sex and age characteristics of library employees, the only agreed upon change has been in a lowering of age levels. Slightly less than half of the libraries feel there has been no change in the past five years in the numbers of minority employees; the rest have noted an increase in minority employment, primarily black. Half the libraries feel the distribution of male and female employees has remained constant; the remainder are divided in believing there are more men or women now than in 1967. Table 2 shows present estimates of distribution by sex and race.[3]

TABLE 2

SEX AND RACE CHARACTERISTICS BY JOB CATEGORY[b]

	Female	Male	White	Minorities
Librarians	65%	35%	89%	11%
Specialists	61	39	91	9
Technicians	63	37	53	47
Clerks	76	24	56	44

[b]does not include any of the National Libraries

When asked to discuss factors which have influenced any changes noted, respondents placed the most emphasis on recruitment policies and an increase in the supply of qualified applicants. Other factors, such as changed salary

[3]One library is excluded from these results due to restrictions on maintaining race data.

levels, changing economic or social conditions, or personnel policies were felt to be of little importance.

Two-thirds of the libraries did not have a formal recruitment program for increasing the number of minority group members. Of the libraries giving formal attention to minority recruitment, the method most used was campus recruitment at minority schools, i.e., at the professional and specialist level - a perhaps natural focus given the near balance noted at the technician and clerical level in Table 2. Some libraries commented upon minority recruitment problems caused by hiring from the Federal Register, and two libraries felt recruitment efforts were hampered by a lack of qualified minority applicants.

In only one-quarter of the libraries were staff positions reduced during the past year, while a total of seventy-five positions were filled in all libraries surveyed.

TABLE 3

REDUCTIONS AND ADDITIONS TO STAFF POSITIONS
(end of FY or CY 1972)

Category	Number Reduced	Number Filled
Librarian	8	21
Specialist	4	2
Technician	2	22
Clerk	4	21
TOTAL	18	66[a]

[a]an additional fifteen persons were hired in the categories of technicians and clerks in a single library, but this particular library could not provide a breakdown. Includes one of three National Libraries.

Job Roles

Interviewees were asked to discuss changes which might have taken place over the past five years in job roles of librarians, specialists, technicians, and clerks. The general consensus regarding librarians was that more complex tasks were being performed, particularly those requiring subject specialization and knowledge of electronic data processing. Specialists, it was felt, now performed more indexing and abstracting than in the past, although one library noted that librarians had taken over many of the tasks formerly performed by specialists. There was general agreement that technicians were now performing more duties which were semi-professional and being used more often at ready-reference desks. There was a corresponding increase in level of responsibility noted for clerks who assumed former technician roles. Looking ahead to the next ten years, two primary trends were noted: 1) more utilization of technicians for public service at ready-reference desks,[4] and 2) more subject specialization and research analysis for librarians. Nearly all agreed on increasing use of the computer, and several libraries planned to become distribution centers rather than collection builders.

Education

This section of the survey was designed to discover policies of the various libraries in the area of hiring requirements as well as present educational levels of staff. All but two libraries surveyed followed minimum requirements for hiring as outlined by the U.S. Civil Service Qualification Standards. (See Appendix B.)

---

[4]one library felt some technicians would be replaced by computer control of serials.

In addition to minimum requirements, the directors were asked about additional qualifications they tended to seek in recruiting, e.g., additional education, experience, personal characteristics. Experience was favored over education; more than half of the directors giving primary importance to experience with or without education. When desired educational areas were specified, they tended to cluster around the physical sciences and the social sciences. In only one case was there specific mention of an attempt to evaluate the applicant's general intelligence, despite educational background and experience.

Two-thirds of the directors felt their staff lacked necessary educational preparation for specific jobs being performed. Weak areas noted were either in areas such as languages, statistics, or government documents, or in general areas such as supervisory skills or practical skills. When asked to comment on the adequacy of library education in preparing graduates for work in their libraries, dissatisfaction with present programs in general (only one library school was specifically identified by three directors) was apparent.

In addition to the usual criticism of an overemphasis on theory at the cost of practical skills, several directors criticized a lack of "service orientation" on the part of recent graduates. An illustrative comment was "we don't seem to be getting any 'people' librarians anymore." Several specific curriculum areas were mentioned as inadequate - legal bibliography, micropublications, and administrative skills. One director felt there was an overemphasis on computers at the expense of traditional librarianship at one particular library school.

Although most interviewees felt that educational qualifications for staff would remain about the same over the next ten years, there was some indication

that more persons with a second graduate degree would be sought. At present, nine per cent of the librarians hold double degrees. Full characteristics of educational background are given in Table 4.

TABLE 4

EDUCATIONAL BACKGROUND OF PRESENT STAFF BY JOB CATEGORY
(end of FY or CY 1977)

Education	Librarian	Specialist	Technician	Clerk
Less than HS diploma				11.6%
HS diploma	5.0%	9.6%	77.4%	81.4%
Some college	8.3	42.8	10.2	4.6
Associate degree				
Library Science			0.8	
Other	1.7		9.4	
Bachelor's degree				
Library Science	1.7			
Other	8.3	9.6	2.3	2.3
Graduate degree				
Library Science	66.0			
Other		38.0		
Double degree				
Library Science Plus other	9.2			
TOTAL[a]	100.2	100.0	100.1	99.9

[a] may not equal 100 per cent due to rounding error

The most notable fact which emerges from the above data is the relatively slight incursion in small and medium sized Federal libraries in this geographical area of graduates of community college associate degree programs in library technology, although this degree has been recognized as fully qualifying

for appointment in the Library Technician series since 1966.

Upward Mobility and Manpower Programs

In general, the hiring pattern noted in Table 5 has not changed over the past five years. That is, approximately sixty-seven per cent of the

TABLE 5

SOURCES OF PERSONNEL PLACED BY JOB CATEGORY[a]
(end of FY or CY 1972)

Source	Number Librarians	Specialists	Technicians	Clerks
New graduates:				
1) library programs	14	-	-	-
2) non-library programs	-	-	6	3
In-library promotions	1	-	8	4
Transfers from other Federal libraries	4	1	2[b]	5[b]
Transfers from non-library occupations	1	1	6[c]	6[c]
Re-entrants to labor force	1	-	4	1
Military Service	-	-	1	-
TOTAL	21	2	27[d]	14[d]

[a]totals differ from Table 3 since Table 5 includes promotions and transfers and new hiring. Where more than one source applied, the first on the list was used.

[b]an additional 5 persons were transfers as noted in the undifferentiated category of technician/clerk.

[c]an additional 10 persons were transfers as noted in the undifferentiated category of technician/clerk.

[d]the additional 15 persons noted in b and c above will increase these totals.

professional librarians hired have been new graduates from library schools, while in the technician/clerk category (undifferentiated due to data collection restraints) only sixteen per cent are recent graduates with in-library promotions and transfers from other Federal libraries accounting for twenty-one per cent each of the new technicians and clerks, and an additional thirty-nine per cent of these workers coming from non-library occupations.

Should this hiring pattern continue, the noted reliance on workers with experience in the technician and clerk categories suggests that programs for continuing education for upward mobility may be of more importance than developing programs for two year A.A. degrees at community colleges. There are some indications from data collected from studies in other areas of the country, particularly California, that this corresponds to nation-wide trends, i.e., community college programs in library technology often tend to be largely composed of part-time students, many of whom are already employed in libraries.

Some support for the above suggestion may be found in responses to questions about specific occupations for which directors found it difficult to obtain qualified personnel. The two major difficulties found were in the technician and clerical categories, and the major reason given was a general shortage of trained personnel. The most usual solution was to hire persons with less than the desired qualifications and train them on-the-job; the second most prevalent tactic being to help existing staff obtain formal education. Since the respondents tended to include sending new personnel to formal courses such as those offered by the USDA Graduate School in their concept of on-the-job training, this reinforces the importance of part-time college training courses for present workers. Not surprisingly, the only positions which most directors felt they had no difficulty in finding qualified personnel to fill were at the professional librarian level.

Manpower Projections

Only half of the libraries surveyed had developed any projections of employment needs for the future. Although some of these projections seem overly optimistic given the growth rate noted earlier, they do include estimations of turn-over rate due to retirements and resignations. No simple amalgamation of figures is possible since each library computed projections over differing time spans and on different bases. However, Table 6 gives some indications of future expectations.

TABLE 6

MANPOWER PROJECTIONS

Job Category	Time Span 1973-1978	1973-1983	Total
Librarian	47	-	47
Library Technician	14	115	129
Specialist	-	-	-
Clerk	4	-	4
All categories[a]	104	-	104
TOTAL	169	115	284

[a] one library had developed a projection, but had not broken this down by job category in order to retain flexibility.

It is only possible to identify, on the basis of the above figures, an expressed need for some 129 library technicians over the next ten years, and a specific need for forty-seven additional librarians over the next five years, with an additional 104 persons to be hired in whatever category seems most

needed at the time (for a total of 284 additions over a ten year period). Furthermore, given informal expressions of turnover rate in the National Libraries, there are suggestions that these three libraries will require replacement of some 640 library technicians over the next ten years.

Conclusions

Although minority groups in the Washington area compose 72.4 per cent of the population,[5] they fill only about ten per cent of the higher level jobs in small and medium-sized Federal libraries in this area. The large pool of minority workers in the technician and clerical categories could provide ample human resources for higher level jobs given opportunities for upward mobility. Given the alternative routes to the 1410 series provided by Civil Service regulations and the anticipated projections of educational qualifications of staff, there are indications that some twenty-five per cent of the openings in the 1410 series will be available for persons who do not follow the traditional M.L.S. route to become professional librarians. Since entry to the 1410 series can also be based on a combination of experience and examination, it seems reasonable to assume that upward mobility can be furthered by the provision of educational opportunities for present workers to better prepare for the Federal librarian examination. Furthermore, the expressed need for additional trained library technicians calls for specific attention to educational programs for technicians, primarily geared for present clerical employees as suggested earlier.

---

[5]U.S. Department of Commerce, Bureau of the Census, Statistical Abstract of the U.S. (Washington, D.C.: Government Printing Office, 1972), p. 23.

CHAPTER III

JOB ROLES

Until very recently, formal attempts at job role definition for LMTAs and Library Associates have, with the exception of the Federal government, generally been based upon the philosophical position expressed in the American Library Association's Library Education and Manpower statement. Federal libraries using the U.S. Civil Service Commission's Classification Standards, which lack a category equivalent to the Library Associate, tend to include job functions defined in other libraries by the Associate category in the Library Technician category. A new trend in role definition for technicians can be seen in the work of the Recruitment Task Force of the Federal Library Committee which has been drafting suggested "bench-mark" position descriptions.[1] Sample job descriptions are presented in the following pages to illustrate these three trends.

Non-Federal Library Job Descriptions

Job Title: Library Technical Assistant I

Job function

Under general supervision, performs technical work in processing, recording, filing, and circulation of library materials.

Characteristic tasks

1. Operate and maintain circulation desk

---

[1]Samples of Library Technician "bench-mark" position description drafts produced by the Recruitment Task Force of the FLC are included courtesy of Ms. Omdahl and Mr. Cylke of FLC.

2. Place materials on reserve
3. Interpret library rules to users
4. Assist in public service areas
5. Assist users in audio-visual materials, equipment and reprography equipment
6. Process interlibrary loans
7. Do simple bibliographic searching and order checking
8. Supervise stack maintenance and shelving in smaller libraries
9. Assist in the maintenance of serials
10. Under supervision, catalog with Library of Congress cards if no problems are involved
11. May supervise clerical employees

Qualifications

Education: Associate degree with LMTA training or one-year certificate with equivalent library experience

Experience: Two years library experience if lacking the A.A. degree

Skills: Proficient in clerical, oral, and written communication and able to work with staff and public

- -

Job Title: Library Technical Assistant II

Job function

Under general supervision, performs moderately complex technical library work requiring wide knowledge and experience in library procedures.

Characteristic tasks

1. Do moderately complex bibliographic checking in English and possibly some foreign languages
2. Establish and maintain serial records
3. Perform elementary reference work

4. Supervise student assistants including work schedules and training
5. Schedule and direct shelf-reading program
6. Supervise operation of circulation desk
7. Direct the activities of a subsystem in cataloging or acquisitions departments
8. Do simple cataloging
9. Supervise LTA I and clerical staffs

Qualifications

Education: Same as LTA I

Experience: At least two years in LTA I classification with increasing responsibility

Special skills: Same as LTA I

- -

Job Title: Library Associate

Job function

Performs work involving a wide variety of duties including possible supervision of a library function, with opportunity for considerable degree of independent judgement.

Characteristic tasks

1. Supervise small branch or departmental library
2. Assist in collection development
3. Provide reference service at information desk
4. Perform original cataloging in subject area
5. Prepare bibliographies

Qualifications

Education: Bachelor's degree from accredited four-year college including a minor in library science or the equivalent in in-house

training courses

Experience: None required

- -

Federal Library Job Descriptions

Job Title: Library Technician GS-4

Job function

Under supervision of a librarian or supervisory library technician, performs a variety of detailed, non-routine, or more complex or non-professional duties following prescribed or standardized methods or instructions.

Characteristic tasks

1 Coding, searching for, recording or filing materials.

2. Processing duplicate non-fiction and adult fiction titles which are being added, reclassified or reinstated.

3. Searching catalogs and shelf list.

4. Identifying and maintaining records of foreign language serial publications.

5. Shelf maintenance of special collections.

6. Maintenance of system of circulation controls, such as reserves, renewals, overdues and inter-library loans.

7. Receive calls requiring skill in sensing the meaning and intent of the request.

Qualifications

See Appendix B

- -

Federal Library Job Descriptions

Job Title: Library Technician GS-5

Job function

Under supervision of a librarian or supervisory library technician, performs tasks which involve use of a significant specialized knowledge of a) the particular library's functions, services, practices and procedures; b) the terminology content and classification scheme of the library's collection or a specialized collection; or c) both.

Characteristic tasks

1. Bibliographic work -- prepares entries for acquisition, verifies data, searches trade journals, catalogs and reference tools
2. Maintains serial checklist -- recording and searching
3. Performs cataloging, either temporary or preliminary and original cataloging in brief form, adaption of LC cards, cataloging new editions
4. Aids individuals in use of library resources by locating materials through catalog, on shelves, etc.

Qualifications

See Appendix B

- -

Job Title: Library Technician GS-6

Job function

Under general technical supervision of a librarian or supervisory library technician, performs work in one or more of the functional areas of librarianship (such as acquisition, cataloging and reference) to provide

technical support and relieve the professional librarian for higher level and more demanding responsibilities.

Characteristic tasks

1. Performs bibliographic searching of difficulty requiring extensive searching.
2. Performs descriptive cataloging of specific library materials.
3. On second shift, serves as person in charge; aids individuals, answers ready-reference questions, etc.
4. May supervise one or two lower grade employees.

Qualifications

See Appendix B

- -

Job Title: Library Technician GS-7

Job function

Under general technical supervision of a librarian who is located either within the local library or at a higher organizational level, works on the basis of a general assignment of responsibilities and follows through the full continuity of the job.

Characteristic tasks

1. Responsible for operation of a small branch, bookmobile or hospital library where the subject area is relatively narrow or non-technical, and where acquisition and cataloging is done centrally.
2. Acquisition services for a library of significant size or group of libraries, responsible for checking order data, etc.
3. Performs descriptive cataloging, possibly of materials in foreign languages.
4. Performs difficult searching in special subject fields.
5. Gives book talks or other presentation to groups.
6. Establishes working relationships within the library and with library clientele.

Qualifications

See Appendix B

- -

Draft Bench-mark Positions - Federal Libraries

Library Technician II (GS-5)

Duties:

Performs a variety of technical and quasi-professional duties in a general, academic, specialized or combination general and specialized library.

In the Technical Processes Area:

- Prepares bibliographic entries for materials to be acquired.

- Maintains serial checklist including the following duties:

a) Records and identifies a large volume of periodicals with a wide range of subject matter, formats and foreign languages.

b) Searches decision files, order records and bibliographic works for titles.

-Performs cataloging, either temporary or preliminary, and original cataloging of routine nature.

-Adapts Library of Congress printed cards to specific needs of the library.

-Types catalog cards from rough draft

-Prepares materials for binding. Work includes assembling, sorting, collating, designating type of binding and lettering to be used.

-Files or supervises lower grade employees who file into card catalog and shelf list.

Work may entail several or all of the above duties depending on the volume of library acquisitions. In addition, may assist with other tasks such as circulation of materials, assisting users in locating materials, maintain shelf order or inter-library loans.

I. Job Requirements and Difficulty of Work Requires:

-Knowledge of standard bibliographic tools and or special subject journals.

-Knowledge of the terminology of the library's special subject field.

- Knowledge of periodical indexes.

-Knowledge of rules for serials control.

-Sufficient familiarity with one or more languages to recognize identifying titles or subjects in a specialized field.

-Knowledge of the Anglo-American Filing rules and ability to interpret them to other personnel.

-Knowledge of the Dewey Decimal Classification System, Library of Congress Classification, or other system(s) used by the library.

-Knowledge of the basic rules for subject and descriptive cataloging.

The work involves technical duties which require application of specific knowledge. Initiative and judgment are necessary.

II. Responsibility

Works independently within established guidelines with limited supervisory responsibility for lower grade personnel. A librarian is usually available to consult on unusual problems, but person sometimes works alone in a small facility. The work requires that judement be exercised in selecting best procedures for handling library materials, and deciding which matters to refer to others.

III. Personal Relationships

Contacts are with supervisor, associates, library users, library jobbers and contractors.

- - - -

-Does basic readers advisory in recommending books to patrons.

-Performs all facets of circulation desk duties indluding registration of borrowers, charging and discharging of books, calling in overdue materials, placing reserves and searching shelves.

-May train or supervise lower grade personnel in circulation desk routines.

Work may entail several or all of the above duties depending on the size of library holdings, variety of resources and patron usage. In addition, may assist with other tasks such as cataloging and book processing, acquisitions, bindery, etc.

I. Job Requirements and Difficulty of Work Requires:

-Considerable knowledge of library's organization, services and facilities.

-Knowledge of library circulation rules, policies, and procedures and ability to interpret these to others.

-Ability to train and supervise others of lower grade in circulation desk routines.

-Good knowledge of Dewey Classification System, Library of Congress Classification, or other system(s) used by the library.

-Knowledge of standard bibliographic tools plus technical subject periodicals and indexes.

-Knowledge of the technical terminology of the subject specialty of the library.

-Knowledge of American Library Association's Inter-library Loan Procedures.

-Knowledge of resources of other agencies from which needed materials can be borrowed.

-Ability to use ready reference sources.

-Ability to demonstrate use of card catalog and simple indexes to library patrons.

-Knowledge of library resources sufficient to aid patrons in selecting materials to meet informational requirements.

-Ability to recognize identifying information on books or documents in a variety of foreign languages - but full knowledge languages is not required.

Work involves a complex of technical library routines which vary considerably and require the use of considerable initiative and judgment in the application

of library regulations, or the use of a variety of standard references or guides.

II. Responsibility

Works independently within a framework of established policies rules, and regulations, but must apply considerable judgment in their application. Work is under supervision of a Librarian or Supervisory Library Technician who is not always present. Work is primarily reviewed for overall effectiveness, quality of services rendered and compliance with policies and procedures.

III. Personal Relationships

Deals with the clientele of the library in providing services or explaining library rules and regulations. Has contacts with personnel in other libraries in locating inter-library loan sources, and works with other personnel in circulation services.

- -

Library Technician III (GS-7)

Duties:

Performs a variety of duties in the Public Services area of a general, specialized, or combination general and specialized, library:

-Performs complex bibliographic searching (incorrect or fragmentary information, obscure items) requiring use of extraordinary sources of information within and outside the library.

-Provides reference assistance involving both ready-reference and more difficult requests.

-Prepares reports.

-Prepares bibliographies providing complete citations.

-Performs abstracting and/or indexing services.

-Based on review sources and knowledge of library holdings and user needs recommends materials for purchase.

-Edits library bibliographic publications.

-Identifies, acquires, maintains, and controls serials and periodicals.

-Serves as the individual in charge of all circulation desk activities to include decision on workload priorities, work schedules and job assignments.

-Instructs and guides library patrons in the use of card catalog, bibliographies, and other reference books.

-Selects and prepares materials for binding.

-In charge of documents collection to include selection, acquisition, cataloging, processing, and reference services.

-Trains and supervises lower graded employees.

-Responsible for the operation of a small branch library where subject area is narrow or general.

Work may entail one or more of the above duties depending on the size of library holdings, variety of resources, size of staff, and utilization.

I. Job Requirements and Difficulty of Work Requires:

-Knowledge of library policies, rules, and procedures.

-Thorough knowledge of Dewey Classification System, Library of Congress Classification, or other system(s) used by the library.

-Knowledge of Anglo-American Filing Rules (in excess of 200).

-Ability to deal with patrons courteously and helpfully.

-Thorough knowledge of reference sources.

-Ability to identify information and resources in one or more foreign languages.

-Ability to type.

The work involves technical duties which require application of specific and specialized knowledges. Duties are mostly non-repetitive and involve the ability to analyze requirements.

II. Responsibility

Works independently in a situation where guidelines are not always established. A supervisor is normally available to deal with unusual problems. Work is spot-checked for technical adequacy.

The work requires choices of procedure in dealing with patrons in person and over the telephone.

III. Personal Relationships

Contacts are with supervisor, associates, patrons of the library, personnel in other government and civilian libraries, and library jobbers.

IV. Physical Effort and Work Environment

Work is performed in a library or office environment and entails considerable standing and walking. Occasional lifting up to thirty pounds may

be required.

- -

Library Technician IV GS-9

Duties:

Performs a variety of duties in the Public Services area of a general, specialized, or combination general and specialized library:

-Performs reference service which requires an in-depth knowledge of subjects covered in the collection.

-Performs complex bibliographic searching not accomplished by lower graded employees involving the use of unconventional sources of information both inside and outside the library.

-Has major responsibility for library service pertaining to a special collection of technical materials.

-Establishes systems and has the complete overall responsibility for the circulation of materials.

-Incumbent may be in charge of the library in the absence of the librarian and uses independent judgment in handling requests and problems.

-Trains and supervises lower graded personnel and maintains equitable distribution of workload.

-Is assigned special projects for independent completion within a subject, language, or functional specialty.

Work may entail one or more of the above duties depending on the size of library holdings, variety of resources, size of staff, and utilization.

I Job Requirements and Difficulty of Work Requires:

-Thorough knowledge of library policies, rules and procedures.

-Thorough knowledge of Dewey Classification System, Library of Congress Classification, or other system(s) used by the library.

-Knowledge of Anglo-American Filing Rules (in excess of 200).

-Ability to exercise initiative and to resolve most problems.

-Thorough knowledge of reference sources inside and outside library.

-Competence within one or more subject or functional areas.

-Ability to use resources in one or more foreign languages.

-Performs duties with minimum supervision receiving guidance when work is of an unusual nature or changes in policy and functions are involved.

The work involves technical duties which require high level application of specific and specialized knowledges. Duties are mostly non-repetitive and require the ability to analyze, define, and satisfy requirements.

II. Responsibility:

Works independently in a situation where guidelines are seldom established. A supervisor is not always available to deal with unusual problems. Work is reviewed for overall accomplishment.

- -

Changes in work roles merely hinted at in the survey reported in Chapter II are given far more extensive consideration in the suggested "bench-mark" positions. Many of the duties listed in these "bench-mark" descriptions are ones traditionally associated with "professional" responsibilities. But, it must be noted that few tasks traditionally defined as "professional" have ever been subjected to empirical analysis similar to the "Functional Job Analysis" used in the Jobs in Instructional Media study (135) to prove conclusively that they must be performed by Master's librarians, and the "bench-mark" descriptions were drafted with knowledge of actual jobs now being done in Federal libraries.

In the absence of a large-scale, scientifically rigorous study such as the JIMS report, the approach taken by the FLC has validity. The job descriptions produced by workshops and institutes almost always are qualified by some statement to the effect that the descriptions are to be considered as models only and should not be adopted *in toto* by any library. Moreover, there is evidence that, in practice, there is wide variance in task assignments, at least in the Associate category, from library to library. Mugnier reports in 1973 that, "Of sixty general tasks assigned to library assistants (fairly universal tasks), I was able to isolate ten which are assigned by two-thirds or more of the 176 participating supervisors." And, ". . . of eight cataloging

activities considered by eighteen technical services supervisors, none are assigned by as many as two-thirds of the supervisors." Ms. mugnier goes on to note that " . . . fifty-eight of the sixty tasks considered are from the 1948 ALA "List ot Professional and Nonprofessional tasks in Libraries" pro-fessional tasks."[2]

Similar variance probably exists in task assignment for technicians. Of the twenty most common tasks noted in recommended job descriptions, only three are reportedly performed by more than fifty per cent of recent technician graduates (see Table 8, p. 41). As technicians gain in experience, at least in the Federal Government, the variations may tend to decrease. For example, the survey of SOLIT members, referred to elsewhere in this report, suggests that of the twenty-four tasks described in Table 8, seventeen are performed by over fifty per cent of the respondents, and these include ten of the most common tasks on job descriptions. Although the results of this survey are inconclusive due to a low response rate (thirty five per cent),[3] some support for the suggested "bench-mark" descriptions prepared by the FLC may be found in Table 7.

Although one of the anticipated products of this investigation was "definitive recommendations for job roles" it now seems apparent that data sufficient to make these recommendations can only be collected through a large-scale study using some such technique as the "Functional Job Analysis" developed by Dr. Sidney A. Fine of the W.E. Upjohn Institite for Employment Research, and budgetary and temporal restraints on the present report did not permit such a study. Accordingly, beyond the suggestions implied in the

---

[2]Letter, Charlotte Mugnier, May 4, 1973. Library "Assistant" is used as a synonym for "Associate." (See also No. 9s.)

[3]However, there is a high correlation between the rank order of jobs performed by the SOLIT sample and in the James study (Spearman r = 0.83).

collated job descriptions included, no definitive recommendations will be made.

TABLE 7

DUTIES PERFORMED BY SOLIT MEMBERS

Job	%performing (N = 34)	
Type cards/forms	85%	
Verify references	82	
Search catalogs	79	
Shelve library materials	76	
Assist readers	68	
Maintain circulation records	68	
Type correspondence	68	
Instruct people how to use the library	65	LEVEL A (50% or more)
Catalog books	62	
Conduct literature searches	62	
Photocopy library materials	59	
Prepare interlibrary loan forms	59	
Repair and mend books	56	
Search order files	56	
Supervise personnel	50	
Prepare journals for binding	50	
Prepare bibliographies	50	
Maintain bookkeeping records	32	
Choose subject headings for books/articles	32	LEVEL B (25-49%)
Choose publications to buy	29	
Determine library policy	29	
Work with data processing equipment	21	
Prepare library budget	18	LEVEL C (0-24%)
Keypunch library records	12	

CHAPTER IV

EDUCATIONAL PATTERNS

Two general approaches to training LMTAs have been followed in the U.S. The most common type of program has tried to give students a broad introduction to library technology, covering every type of technical work in libraries. This approach has been said to produce a "watered-down" librarian who is very mobile, can work in almost any type of library, but is "less valuable than a librarian, however, because he lacks the latter's professional ability."(73) The second approach has attempted to train students in certain specific skills or to prepare them to work in one specific type of library. This creates a much less mobile graduate than the first type program, but "when doing the work for which he is qualified, he would be much more valuable."(73)

The reasons community colleges have tended to develop the first type of program above seem, in retrospect, natural if not well-advised. The sudden expansion, primarily due to government aid, of vocational educational programs in community colleges antedated the library profession's development of rational job classifications for library technicians, and to a great extent, any agreed upon acceptance by the profession of the technician category of worker. Consequently, programs were developed rapidly without a coherent theoretical base.

New instructors in these programs tended to teach the same type of library courses they themselves took in graduate library schools, in some cases

not even "watering" these courses down - as course descriptions in many current programs still indicate. As a 1972 workshop sponsored by the Council on Library Technology reported:[1]

> Few published statements of the LTA programs make an incisive distinction between the lower division credits of an undergraduate curriculum and upper division courses in library service. While none of the forty program brochures state that the courses could substitute for upper division credits, some intimate that their training would enhance further library education. An example of this is ". . . students who wish to transfer to a four-year college or university in library science may use the technical training available in the . . . program as a basis for study towards a professional library degree."(73, pp. 14-15)

While the "Criteria for programs to prepare library technical assistants,"(77) had a positive effect on programs established after 1968, many weaknesses in programs were still apparent when Hensley conducted a study in 1971 to determine how well these programs conformed to the "Criteria. . ." (58) Among other findings, Hensley noted that:

1. Individual programs had generally small enrollments and a low completion rate.
2. Many programs trained personnel for jobs which did not exist in libraries, and some misled their graduates into thinking they would be accepted as professional librarians.
3. Although the "Criteria. . ." called for involvement of an Advisory Board in surveying local needs, curriculum planning, and faculty appointments, only 44 out of 72 programs appointed such a board before initiating classes; only 33 programs conducted preliminary surveys, and only two advisory boards were specifically identified as being involved with curriculum planning, while nine boards were involved with faculty appointments.
4. Few technician programs had full-time directors or faculty; more than

---

[1]Copyright 1972 Council on Library Technology. Reprinted by permission.

half were administratively part of the learning resource center.

Furthermore, while the "Criteria. . ." states that:

> The curriculum should reflect program objectives and should be based upon a set of clearly stated goals for the total program. It should provide for upgrading of appropriate level library/media center employees as well as recent high school graduates.

the Hensley study indicated only forty programs had clearly stated objectives while the remainder either had no formal objectives or gave no response to the question. The large amount of general unease in the library profession about the worth of these programs is understandable in the context of the above developments. Generally, the development of many LMTA programs and professional resistance to these programs and their graduates seems to have stemmed from a misunderstanding about the definition and role of the LMTA. Some statements by Dr. Charles Evans at a COLT regional workshop(73, pp. 20-22) put this in perspective.

Dr. Evans defines the LMTA program as a "community college program designed to prepare people for careers in non-professional library work." He goes on to analyze this definition in five steps: (all italics mine)

> First, the program prepares people for <u>work</u>. It doesn't aim to provide a general education; it doesn't aim to raise the cultural level of its students. . . It just prepares them for work.
>
> Second, the program prepares people for <u>library work</u>. . . Its courses concentrate on Library skills, like shelf maintenance, book repair or cataloging. (I assume Dr. Evans means descriptive cataloging.)
>
> Third, the program prepares people for <u>non-professional work</u> only.
>
> Fourth, the LMTA program prepares its students for <u>careers</u> in library work . . . it must do more than prepare them to hold a job; it must develop in them the capacity for on-the-job improvement of their skills . . .
>
> Fifth, . . . the LMTA program is a <u>community college program</u>, (i.e., it must fit the needs of the local community) and must teach the technical skills that are needed in local libraries, whether or not they are among those listed by Asheim as appropriate for the LMTA class . . .
>
> Although most community college programs include the four basic core

courses (at least in name) recommended by the "Criteria . . ." - Introduction to Library/Media Centers; Support Operations for Technical Services; Support Operations for Public Services; and, Practical Experience and Supervised Field Work; (usually a fifth area, Support Operations for Audio-Visual Operations is included) - descriptions of some of the above core courses and additional course offerings often tend to support professional feelings about "watered-down" library courses. To illustrate, the following syntheses of actual course descriptions are presented as paradigms:

LS 101. Introduction to Library Services

History of print and non-print materials from prehistoric beginnings to present. Basic philosophy, procedures, tools, and techniques. Relationship of libraries to overall educational programs in society.

LS 102. Technical Services

Acquisition and preparation for use of library materials. Order procedures, simple classification, cataloging, filing and bookkeeping.

LS 201. Public Services

Introductory reference course designed to train students to use library materials such as the card catalog, general reference sources, and standard bibliographic sources. Major emphasis on encyclopedias, dictionaries, indexes, bibliographies, yearbooks, and methods of evaluating and selecting reference books. (italics mine)

LS 202. Audio-Visual Services

Use and simple maintenance of audio-visual materials. Development of expertise in handling audio-visual services. Emphasis on production of materials.

LS 203. Cataloging and Classification

Covers classification in Dewey and LC, principles and practice of cataloging.

LS 204. Children's Literature

Survey of the development of children's literature. Selection and evaluation of children's books. Story-telling, planning summer reading programs, and book talks. (italics mine)

LS 205. Advanced reference sources

Special reference sources in major subject fields. Review of public service techniques. Historical background and important documents in selected subject areas.

Many attempts have been made to proscribe the appropriate curriculum for library technology programs, ranging from detailed presentations such as that of the Chancellor's Office of the California Community Colleges (89) and the Tex-Tex Syllabi (92) to a brief exposition such as the following:

1. Library services - Explanation of the ethics and philosophy of the profession - description of the purposes of all types of libraries - field trips to other libraries.
2. Library resources - Explanation of the use of the card catalog, indexes, simple reference books and other library materials.
3. Ordering procedures - The preparation of orders for book jobbers.
4. Circulation routines - The charging and discharging of books, receiving of application forms and the keeping of library statistics.
5. Cataloging techniques - Typing cards, filing, bibliographic work and simple cataloging.
6. Binding and repair procedures - The preparation of books and magazines for the bindery and the proper mending and care that can be done without commercial help. (83)

This last outline corresponds fairly closely to a list of duties performed by most library technician graduates, although it does not seem to furnish preparation for a number of other tasks performed by graduates as the following table illustrates:

TABLE 8

DUTIES PERFORMED BY LIBRARY TECHNICIAN GRADUATES

Duties	Number	Per cent	
Type cards/forms	76	83%	
Assist readers	71	78	
Instruct people how to use the library	70	77	
Maintain circulation records	64	70	LEVEL A
Search catalogs	63	69	(50% or more)
Shelve library materials	54	59	
Type correspondence	53	58	
Repair and mend books	49	54	
Search order files	45	49	
Supervise personnel	40	44	
Photocopy library materials	40	44	
Catalog books	38	42	
Verify references	34	37	
Prepare journals for binding	29	32	LEVEL B
Conduct literature searches	29	32	(25-49%)
Maintain bookkeeping and accounting records	28	31	
Choose subject headings for books or articles	27	30	
Choose publications to buy	26	29	
Prepare bibliographies	26	29	
Determine library policy	22	24	
Prepare interlibrary loan forms	20	22	
Prepare library budget	12	13	LEVEL C
Keypunch library records	7	8	(0-24%)
Work with data processing equipment	6	7	

Source: John E. James, "Library technician program: the library technician graduates' point of view," Special Libraries 62 (July/August, 1971), p. 274.

Table 8 also supports contentions that some technicians are being used to perform tasks usually considered professional. Note for example, the thirty-two per cent of new technician graduates who conduct literature searches, the thirty per cent who choose subject headings for books or articles, the twenty-four per cent who determine library policy, or the thirteen per cent who prepare library budgets. Indeed, evidence such as the above often provokes an allusion to Gresham's Law, i.e., "bad money drives out good," in library circles to imply the takeover of professional jobs by poorly trained technicians.

However, this implication involves a questionable assumption; it assumes that all technician graduates possess a limited educational background, i.e., are in their early twenties and have gone directly from high school to a community college program. In fact, the median age of graduates reported in the James study(59) was thirty-three.[2] Although there is no comparable study of educational background of students in technician programs, the various reports of programs indicate a sizeable proportion of these students have at least some other college education if not a bachelor's degree in some other field and are often people like housewives returning to the labor force after their children are in school or grown. Some corroboration for this is furnished by a survey of the Society of Library and Information Technicians (a Washington, D.C. organization) conducted by this investigator. Thirty per cent of the respondents to this survey had completed one to three years of college, fifteen per cent were college graduates, and an additional thirteen per cent had one or more years of graduate education. A study of characteristics of employees in health sciences libraries indicated similar educational

---

[2]Median age is used here since the mean age was 35.2 with a standard deviation of 13.5

backgrounds - 28.5 per cent, one to three years of college; 19.9 per cent holding a bachelor's degree, 13.2 per cent having some graduate education.(154)

Moreover, since most librarians are not economists, the operation of economic forces more important than Gresham's Law is not often recognized. For example, the power of the buyer in decision making with regard to the allocation of resources for library services will not be easily recognized by librarians who liken their profession to the medical or legal profession. This is a very real power. If a small library, with limited resources, finds it more cost-effective to use a library technician to choose subject headings for the small number of books being added to the collection each year, then this library will very likely use a library technician if one is available. Little attention may be given to mandates from librarians who insist that subject cataloging is a "professional" task and that library standards require graduate librarians.

One might equally well quote a law older than Gresham's, taken from physics, i.e., "nature abhors a vacuum," to make it clear that if library service is desired by a particular client-group with limited resources, a way to provide it will be found, and if professional librarians are in effect priced out of the market, cheaper substitutes will be sought.

Therefore, since all practical evidence indicates that library technicians are here to stay, and libraries who need this category of worker are going to employ them, this report suggests the most important factors to be considered in designing educational programs for technicians are Dr. Evans' Fourth and Fifth points, referred to earlier, i.e., the LMTA program must fit the needs of the local community, and LMTA programs must develop in graduates the capacity for on-the-job improvement of their skills.

The mean beginning salary for a technician graduate in 1969 was $5,708 as compared with $8,161 for beginning Master's librarians.(59) This suggests a much lesser degree of geographical job mobility for technicians than for professional librarians. The implications of this factor, when taken in conjunction with the suggestions in the preceding paragraph, are sufficient, without recourse to arguments about "professionals" versus "non-professionals" to argue strongly against any "jack-of-all trades" approach to educating library technicians. Therefore, suggestions for curriculum models applicable to all technician training must be limited to a very basic core, with primary attention in curriculum design given to local needs. This enhances the importance of local surveys coupled with analyses of tasks in local libraries for any community college considering a technician program. At the same time, the above approach can, if carried to extremes, create considerable difficulties for developing national standards for evaluating programs and attempts at certification of library technicians.

Certification of technicians is generally seen as a desirable development. For example, an Indiana study(41) reported that eighty-five per cent of the respondents agreed LMTAs should be certified in some way. "This desire to 'control' is consistent with national trends in other recognized sub-professional or supportive type occupations wherever professionals in that particular field of work are instrumental in the design of related policies, plans or programs."(41, p. 30)

A COLT workshop listed the following purposes of certification:[3]

First, certification would establish a basic set of entry requirements for the position of LTA's such as minimum education, minimum

---

[3]Copyright ©1970 by Council on Library Technology. Reprinted by permission.

requirements of the programs to avoid having programs like the six-week wonder programs that turn out LTA's who do not really deserve the title - not through the fault of the student, but through the inadequacy of the training program.

Second, certification might establish a recognized operational level for the LTA and thereby distinguish between clerical, technical, and professional levels.

Third, certification might establish a clear cut status for the LTA, something he has not had to the present time.

Fourth, certification would serve to improve the psychological morale of the LTA.

Fifth, certification should improve the status of the professional librarian by defining professional responsibilities or adding impetus to the definition of professional responsibilities of librarianship.

Sixth, certification should help in the recruitment of potential LTA's and result in a recognized level of entry and of qualification for entry into the programs.

Seventh, certification may establish criteria for training programs and help to develop uniformity in quality of instruction within the programs throughout the country.

Eighth, certification could result in the establishment of salary schedules and task analysis.

Ninth, certification could provide for the mobility of LTA's within

and without various states.

Tenth, as states move to certify LTA's a closer relationship should result between the professional associations and the LTA's themselves.

Last, certification should help in improving library service through the country.(57, pp. 54-55)

While the above are all excellent reasons, they may be symptomatic of a) a tendency to overemphasize one category of library worker, and b) over-reliance upon parallels between fields such as medicine and librarianship, i.e., a feeling that because doctors are supported (in part) by medical technicians, and librarians are supported (by recommendation) by library technicians, the medical technician and the library technician are somehow in the same category of supportive employee. For example, Point Five above suggests that certification of LTA's should "improve the status of the professional librarian . . ." It might be argued that professional status for doctors was not achieved by creating more stringent requirements and/or certification for supportive medical personnel.

An alternate approach to education for various categories of library workers was expressed by Ruth Warncke in a contribution to Library Journal's "Library education and the shortage (of both manpower and talent)."(16) Ms. Warncke suggests that graduates of five-year programs often believe that these programs equip one for any high-level professional job and obviate the need for any continuing education. At the same time, many new graduates are assigned jobs "that not only can be done by people without the fifty-year halo, but that are done by them whenever a fifty-year graduate is not available, i.e., an increasingly large amount of the time." Ms. Warncke feels that the latter situation is an "unconsciously realistic appraisal of the value of many of our

fifth-year programs." Her conclusions are: 1) a sound under-graduate program is needed ("infinitely better than most such programs now in existence") to provide workers for the many jobs in libraries requiring a basic knowledge of library functions and the basic educational background of a liberal education, (and these workers should be paid salaries equivalent to present salaries for beginning fifth-year graduates), and 2) fifth-year programs should be up-graded to produce "administrators, subject specialists, advanced catalogers, and information specialists." There seems to be nothing in this approach contrary to the accepted position of the American Library Association expressed in its "Education and Manpower for Librarianship" statement. At the same time, it implies a recognition of a basic difference between technical, pre-professional, and professional responsibilities.

The importance and the need for supportive personnel in libraries is unquestioned. This report does question, however, the need for extensive formalization at the national level of educational programs for technical and clerical category library workers. Without hard evidence, for example, that graduates of two-year programs possess so much job mobility that inter-state recognition of their training by national certification would be valuable, it seems questionable to argue for this type of certification at this point. State certification seems much more justifiable.

LMTA programs at community colleges have developed in response to local needs; this has been a cause for weakness in the development of extremely varied programs; it can also be a factor for strength if programs are developed with the close cooperation of the local library community and if the true economic value (as a substitute for costly in-house training) of this type of program is recognized.

The emphasis on local needs may dispel the fears of the library profession

that two-year Associate degree programs are developing to flood the national job market with "watered-down" librarians who will drive out the professionals. The library technician is not a cheap librarian, and if local librarians are closely involved with the development of local programs and make clear to community colleges the needs of the libraries in the area for supportive personnel, there is no reason why graduates with the requisite skills cannot be produced.

With this in mind, the curriculum models presented in the next Chapter should be viewed as general suggestions for this geographical area, not as prescriptive models.

CHAPTER V

CURRICULUM MODELS

Library Technicians

Various task analyses have identified a number of duties presently being performed by library staff members with a technician classification. The following list includes the most agreed upon tasks.

1. Explaining to borrowers the library rules for checking out and returning materials.
2. Giving users directions on location of library departments.
3. Explaining to users the resources and services of the library.
4. Finding specific books on the shelf for users.
5. Searching for simple trade bibliographical data.
6. Helping people use the card catalog.
7. Answering simple reference questions using ready-reference tools.
8. Supervising the work of clerical staff.
9. Charging out library materials and clearing returned materials.
10. Checking catalogs and shelf lists for holdings.
11. Planning displays
12. Operating various non-print equipment such as tape recorders, motion picture projectors, etc.

Any community college considering developing a technical assistant program should, of course, set definite achievement levels geared to the particular manpower requirements for job entry in the local area. A college planning such a program would be well advised to follow the guidelines set forth in

the American Library Association Library Education Division's "Criteria for programs to prepare library/media technical assistants."(77) For clarification, the portion of that statement pertaining to curriculum planning is reproduced below:

I. Goal statement

A. Any community college planning a Library/Media Technical Assistant program should draft clearly defined objectives for the program stated in terms of the educational results to be achieved. The goals should be consistent with general Library/Media Technical Assistant roles and relevant policy statements of the American Library Association. They should reflect the needs of the constituency the program seeks to serve. Cost estimates for initiating and developing the program should also be prepared and locations for field experience investigated.

B. The Library Learning Resource Center staff at the college will normally prepare the statement of goals and develop plans with guidance from the college administration. The staff will also recommend a local advisory committee.

II. Local advisory committee membership

A. Any community or junior college contemplating a program for Library/Media Technical Assistants should, as a first step, establish a local advisory committee.

B. This committee should be appointed in accordance with the administration policy of the institution and report to the president, the board, or other college administrator as may be appropriate.

C. Membership on the local committee might include:

1. a representative from the state library.

2. the director of a major local public library or his personnel

director

3. a school library/media supervisor
4. the librarian of a local four-year academic institution or his designate.
5. the head of a local special library or information center
6. a representative named by a state-wide library or media association or other relevant professional association.
7. the librarian and the library/media technical assistant program director of the community college should be ex-officio committee members.
8. others may include: local or state civil service board members, placement counselors, deans of graduate library schools or their designates, department heads or supervisors in local libraries, etc.

D. Membership on the local advisory committee should be for two or three years with staggered terms.

III. Advisory committee responsibilities

A. Before any course is planned, announced or offered, the local advisory committee should:

1. review the statement of goals.
2. investigate the local need for such a program and advise on conduct of a survey relating to employment possibilities for Library/Media Technical Assistants. No program should be announced or started without a positive recommendation from the local committee after such investigation.
3. advise on qualifications for the position of the program director.
4. advise on the nature and content of the curriculum based on

total program objectives.

5. ensure that program planning, resources, and fundings are adequate prior to initial course offerings.

B. The committee will provide continuing liaison between the community college and employers of supportive library staff personnel.

C. The committee should ensure that programs meet state and national standards.

D. The committee should meet as regularly as needed but not less than once a year.

E. The local advisory committee should also communicate freely on civil service, professional relations, etc. regarding the Library/Media Technical Assistant program at state, regional, and national levels and, if appropriate, establish formal organizations and channels to facilitate such communications.

Given the above qualifications on final planning of a program, the tasks analyzed on page 49 seem, however, common enough to general technical assistant work in libraries to provide the basis for a curriculum model.

The curriculum model leading to the Associate Degree in Library/Media Technology is divided into three areas; 1) General Education courses; 2) Library/Media core courses; and, 3) Specialized library and/or subject courses.

General Education

The General Education area should constitute approximately fifty per cent of the total course work, including courses in the Humanities, Social Sciences, Natural Sciences, and Mathematical Sciences. These courses should be eligible for transfer credit to a four-year college.

Library/Media courses

Library/Media core courses, constituting approximately twenty-five per cent of the total course work, are intended to familiarize the student with basic technical tasks in a library/media center. These core courses are described in the following paragraphs (with recognition that titles are suggestions only).

Specialized courses

These optional courses will comprise approximately twenty-five per cent of the total course load. They could be either specialized library courses, such as "Advanced A/V methods;" specialized techniques or methods such as "Office Procedures and Skills;" "Graphics" or "Data Processing" or special subject courses such as foreign languages, medical technology, or government documents, depending primarily upon local job needs and student interest.

Course of study

To provide career lattices for all levels of employment in libraries, the progression through the core courses in four semesters is linked to job opportunities as shown in Figure 1. (Movement beyond the Library/Media Technical Assistant level is discussed elsewhere.) This does not suggest that completion of one level would automatically qualify the student for immediate acceptance in a job at that level, but merely recognizes the link between job categories and educational levels. This also provides students who do not finish the program with some preparation for work in libraries.

FIGURE 1

SUGGESTED CAREER LADDER AND RELATED TRAINING

Job	1st Semester	2nd Semester	3rd Semester	4th Semester
Library Page	Introduction to Library Services			
Clerk I	Technical Processes			
Clerk II		Public Services		
Senior Clerk			Audio-visual	
Library Technical Assistant				Practicum and seminar plus A.A. degree

Source: Office of the Chancellor, California Community Colleges, "The Library Technical Assistant Program: Guidelines and Courses Content for Community College Programs," (July, 1970), p. 14. (Some portions of the original in this non-copyrighted publication are omitted for clarity)

CORE COURSES

1. Introduction to Library Services (3 credits)

Description: An introduction to the history, development, and philosophy of libraries and their organization with special emphasis on Federal libraries. Role of the technical assistant in overall staffing patterns. Basic terminology and tools of the field such as the card catalog. Practical experience in a working library emphasized.

Outline

I. Introduction to Course

II. History of library services

III. Role of library technician

IV. Use of card catalog

V. Organization and arrangement of shelves

VI. Mending books and magazines

VII. Laboratory exercises

Performance objectives - the student will be able to:

a. locate a variety of materials through the catalog;

b. differentiate between types of libraries and services;

c. do simple book mending;

d. shelve and shelf-read library materials.

2. Technical Services Support Activities (3 credits)

Description: Various tasks performed by technical assistants in the acquisition of varieties of materials added to libraries and types of programs and techniques involved. Laboratory sessions to teach search and verification procedures involved in using tools such as National Union Catalog, Cumulative Book Index, and more specialized sources, particularly those connected with government publications.

Outline

I. Introduction to course

II. Acquisition procedures

III Processing methods

IV. Catalog cards - typing and filing rules

V. Records

Performance objectives - the student will be able to:

a. locate necessary bibliographic information to order materials;

b. prepare order forms;

c. keep business records and statistics;

d. type and file catalog cards;

e. check orders in the card catalog for duplication;

f. order LC cards.

3. Cataloging and Stack Organization (3 credits)

Description: Study of major classification schemes from practical viewpoint of stack arrangement and principles of descriptive cataloging.

Outline

I. Introduction to course

II. Classification schemes - shelf arrangement

III. Descriptive cataloging

Performance objectives - the student will be able to:

a. discuss relationship between classification schemes and stack organization;

b. catalog material on hand, excluding subject cataloging.

4. Public Services Support Activities (3 credits)

Description: Circulation systems; information-finding through basic reference sources; public relations.

Outline

I. Introduction to course

II. Public relations

III. Circulation systems

IV. Reference sources

Performance objectives - the student will be able to:

a. design and assemble displays;

b. charge and discharge materials;

c. assist patrons in use of card catalog and other finding tools;

d. answer simple reference questions, and recognize when to refer questions to a librarian;

e. understand and appreciate the service aspect of libraries.

5. Non-print Materials (3 credits)

Description: Operation and routine preventive maintenance of common types of audio-visual equipment and survey of various production techniques.

Outline

I. Introduction to course

II. Use of audio-visual equipment

III. Maintenance

IV. Production techniques

V. Acquisition of audio-visual materials

Performance objectives - the student will be able to:

a. operate projectors, viewers, tape recorders, phonographs, and video tape recorders;

b. perform preventive maintenance on the above equipment and recognize problems requiring expert service;

c. mount slides;

d. splice film and filmstrips;

e. demonstrate knowledge of sources of audio-visual materials;

f. apply clerical procedures necessary to acquisition and inventory of audio-visual materials.

6. Work Experience and Seminar (3 credits)

Description: Closely supervised field work in two or more types of libraries with seminar meetings to discuss experiences and related theory. Purpose is to broaden the students perspective regarding differing methods and routines taught in earlier courses and provide practical job knowledge and experience.

Technical Information Specialists

In the preceding section, a curriculum model for the training of LMTAs which would provide graduates with educational preparation necessary to meet minimum qualifying standards for the GS-1411 series, Library Technician, was outlined. In addition to the GS-1410 series - Librarian - a third employment category exists within the Federal library system, that of Technical Information Specialist, GS-1412.

According to the qualification standards:

> The subject-matter knowledge for the Technical Information Specialist typically covers a broad field, rather than a deep subject knowledge and competence related to a specific discipline or field of interest, or a full knowledge of the state of the art.(74)

Technical Information Specialists may analyze and transmit the intellectual content of scientific, technological, or other specialized information; acquire, index, and prepare abstracts of documents; analyze questions from users and perform literature searches; or perform limited aspects of the work of a professional librarian. Ordinarily, these specialists begin with some knowledge of a subject field and are taught the required library techniques on the job.

Basic educational requirements for appointment to grade GS-5 in the 1412 series (in some cases experience may substitute for specific education) are:

> A full 4-year course of study in an accredited college or university which meets all academic requirements for a bachelor's degree, and (1) which has included at least 24 semester hour credits in the physical sciences, biological sciences, social sciences or other specialized subject matter field for which the applicant is being considered; or (2) any combination of subjects which included at least 15 semester hour credits in a major subject (such as physics or chemistry) which is especially applicable to the position for which the applicant is being considered.

As an example of the way in which persons might utilize the convenience of beginning their post-high school education at community colleges, while

retaining the option of transferral later to a four-year college and at the same time gaining the presumed benefits in the job market for the 1412s which a background in library skills would provide, the following curriculum model is presented.

I. Mathematics as related to librarianship - Community College Preparation*

A. General Education

1. English (12)

ENG 101 Composition and Rhetoric (3)
ENG 102 Composition and Literature (3)
ENG 201 English Literature I (3)
ENG 202 English Literature II (3)

2. History (6)

HIST 101 History of Western Civilization I (3)
HIST 102 History of Western Civilization II (3)

3. Science (8)

Electives selected from Biology, Chemistry, or Physics

4. Social Sciences (6)

SOC 101 Introduction to Sociology (3)
SOC 102 Sociology II (3)

5. Fine Arts (3)

ART 101 History and Appreciation of Art (3)

B. Mathematics (20)

MTH 102 College Algebra and Trigonometry (4)
MTH 120 Calculus I and Analytic Geometry (4)
MTH 121 Calculus II (4)
MTH 220 Calculus III (4)
MTH 221 Calculus IV (4)

---

*Course numbers and titles based on Charles County Community College 1972-73 Catalog. Numbers in parentheses are semester hour credits.

C. Library Science (12)

LSC 101 Introduction to Library Science (3)
LSC 102 Library Resources (3)
LSC 105 Introduction to Technical Services (3)

D. Physical Education (4)

TOTAL CREDITS - 68

4-year college preparation

The Community College program is designed to satisfy University General Education requirements and the Mathematics Department introductory sequence requirement. The two years at Maryland would be spent in fulfilling the requirements for a Bachelor of Science in Mathematics, i.e., 1) eight upper division mathematics or probability and statistics courses; 2) supporting course work in a) Sciences - Botany, Chemistry, Microbiology, Physics, or Zoology; and b) a supporting area which may be interdisciplinary as long as six credits are taken in one department and six credits are at the 300-400 level.

II. Chemistry as related to Librarianship-Community College Preparation*

A. General Education

1. English (12)

ENG 101 Composition and Rhetoric (3)
ENG 102 Composition and Literature (3)
ENG 201 English Literature I (3)
ENG 202 English Literature II (3)

2. History (6)

HIST 101 History of Western Civilization I (3)
HIST 102 History of Western Civilization II (3)

---

*Course numbers and titles based on Charles County Community College 1972-73 Catalog. Numbers in parentheses are semester hour credits.

3. Science (12)

Electives selected from Physics
PHY 121 General Engineering Physics I (4) 3 hrs lec., 2 hrs lab.
PHY 220 General Engineering Physics II (4) 3 hrs lec., 2 hrs lab.
PHY 221 General Engineering Physics III (4) 3 hrs lec., 2 hrs lab.

4. Mathematics (3-4)

MTH 120 Calculus I and Analytic Geometry (4)

5. Social Sciences (6)

SOC 101 Introduction to Sociology (3)
PSY 101 General Psychology (3)

6. Fine Arts (3)

ART 101 History and Appreciation of Art (3)

B. Chemistry (16)

CHE 120 General Chemistry I (4) 3 hrs lec., 3 hrs lab. Equivalent to U. of Md. Chem 103 - College Chemistry I (4)
CHE 121 General Chemistry II (4) 3 hrs lec., 3 hrs lab.
CHE 220 Organic Chemistry I (4) 3 hrs lec., 4 hrs lab.
CHE 221 Organic Chemistry II (4) 3 hrs lec., 4 hrs lab.

C. Library Science (9)

LSC 101 Introduction to Library Science (3)
LSC 102 Library Resources (3)
LSC 105 Introduction to Technical Services (3)

D. Physical Education (4)

TOTAL CREDITS - 68

The Community College program is designed to satisfy University General Education requirements and the Chemistry Department introductory sequence requirement. The two years at Maryland would be spent in fulfilling the requirements for a Bachelor of Science in Chemistry, i.e., 12 upper division credits plus German or Russian.

Similar models in other subject areas could be developed depending

upon individual student interests. Depending upon the area of the sciences in which the student took introductory courses at the community college, by completing the supporting course work required above in the same area, upon graduation the basic requirements for GS-5, Technical Information Specialist, would have been met. Should the student elect to continue in a graduate program, one academic year of graduate education in a subject field directly applicable to a position applied for is qualifying for appointment to grade GS-7, while a Master's degree is qualifying for GS-9 and the doctorate for GS-11

It must be clearly recognized that under new academic regulations at the University of Maryland, a maximum of sixty credit hours are transferrable from community colleges. While some departments on campus have indicated a willingness to accept community college courses in library science as electives, others have not. In any case, some credits would inevitably be lost under curriculum models such as the above. However, this may not be significant in a larger view if one remembers that loss of credit does not imply loss of knowledge, and, in later employment seeking, the library science courses will still appear upon the community college transcript.

An alternative plan, which would avoid some of the problems posed by the above, could be to postpone library science courses until reaching the University of Maryland and then take 9-12 hours in the Library Science Education Curriculum as electives, although with no intention of preparing for a teaching career.

CHAPTER VI

CONCLUSIONS AND RECOMMENDATIONS

The opportunity for upward mobility in Federal libraries for all employees already exists in the formal structure of Civil Service regulations. (See Appendix A) What does not yet exist is a formal mechanism for providing the education to fulfill requirements listed in these regulations for all who desire the opportunity.

Undergraduate courses in library science offered at two community colleges in the area and the University of Maryland are not oriented towards providing continuing education for employees in Federal libraries since these courses have been developed for other reasons. Courses at the U.S. Department of Agriculture Graduate School are not always conveniently located enough to be available to employees of all government libraries in this area. Availability of graduate courses for working persons is limited due to time constraints.

All evidence developed through this study and others, (for example, see No. 6s), indicates a definite need for extensions of library courses at times and places convenient for Federal library employees. The lack of an accepted articulation program between community colleges, undergraduate programs, and a graduate library school, creates hardships for persons employed in this area who wish to continue their educational development. Lack of sufficient data for rational curriculum planning based on job needs prohibits the intelligent development of programs to serve the job needs of Federal libraries.

Accordingly, the following recommendations, projected on a time-line, are made to seek answers to problems noted in this study. The first three recommendations are interim solution proposals; the last recommendation, involving a considerable commitment of both time and money, is suggested as the most logical method for an overall solution.

1. September, 1973 - June, 1974

An articulation plan between two-year, four-year, and graduate programs in library science should be developed. To this end, the following research studies should be conducted:

a) an analysis of course content at the community college, undergraduate and graduate levels

b) development of a competency-based examination for students wishing to apply for "credit by examination"

2. Spring Semester, 1974 -

The University of Maryland, as the only Federal land-grant college in the area with a graduate school of library science, should take the initiative in developing extension services for persons working in Federal libraries. To this end, the following is suggested:

a) The School of Library and Information Services should begin an experimental program, similar to the one initiated at Drexel some years ago(54) to admit government library employees as non-degree students to pursue specific subjects directly related to their work requirements. There is at present provision for non-degree status in the catalog of the school, but students in this category must now meet the same qualification standards as regular students, i.e., a bachelor's degree from an accredited school, etc It is recommended that a limited number of students, who may not meet the usual admission

standards, be admitted on an experimental basis to specific courses.

b) The School of Library and Information Services should take a leadership role in cooperating with local community colleges to provide extension night courses in Library Technology for improving upward mobility for government employees into the Library Technician series. Since a number of respondents in the survey discussed in Chapter II stated their staff found it difficult to attend courses at the U.S. Department of Agriculture Graduate School, more convenient locations for such courses should be found. In addition, given the recognition granted an Associate of Arts degree in Civil Service standards, and the manpower projections, one community college should provide a full two-year program leading to the A.A. degree in Library Technology. The only institution in this area presently offering a two-year program is Washington Technical Institute, and their program is in Media Technology, not primarily intended to meet the needs of Federal libraries. Charles County Community College does offer a one-year certificate program and could logically consider a two-year program, but its geographical location might be inconvient for many workers presently employed in Washington and Baltimore libraries. A more centrally located community college would be preferable for this program. This would permit Charles County Community College to continue concentrating upon its present program for the employment market in Southern Maryland libraries.

3. 1974 -

As partial alternative or in conjunction with the preceding recommendation, modules for mediated instructional packages to provide continuing education for employees in Federal libraries could be developed. These modules, based

on behavioral objectives at specified levels of performance and consisting of programmed texts, video-tapes, directed readings, multi-media presentations, and possibly Computer-Assisted Instruction, should be of sufficient sophistication to allow student determination of required access points, i.e., the student, through interaction with the modules, determines the proper plug-in point for his present level of development. Depending upon the level of financial support available, (since nothing in this recommendation is technologically impossible at this time) these modules could be as simple as mailable educational kits, or as sophisticated as on-line terminal installations in various Federal libraries.

4. September, 1973 -

The possibilities of conducting a full-scale Functional Job Analysis and related curriculum planning study, along the lines of JIMs study, but directed at Federal library needs, should be investigated, and, if feasible, carried out.

APPENDIX A
CAREER LATTICE BASED ON CIVIL SERVICE REQUIREMENTS

Explanation: Aide - Library Aide - 1411 series
LMTA - Library Technician - 1411 series
TIS - Technical Information Specialist - 1412 series
Libn - Librarian - 1410 series

EDUCATION	0	3 months	6 months	1 year	2 years	3 years	4 years	5 years
Ph.D.	Libn GS-11							
M.A. or M.S.	Libn GS-9			TIS GS-11				
One Year Graduate School	TIS GS-7			TIS GS-9	TIS GS-11			
B.A. or B.S.	LMTA GS-5			TIS GS-7 or Libn GS-9*	TIS GS-9	TIS GS-11		
3 Years College				TIS GS-5	TIS GS-7	TIS GS-9	TIS GS-11	
A.A. Degree	LMTA GS-4			LMTA GS-5	LMTA GS-6	LMTA GS-7 or Libn GS-9*		
2 Years College						TIS GS-7	TIS GS-9	TIS GS-11
1 Year College or Business School	Aide GS-3			LMTA GS-4	LMTA GS-5		Libn GS-9*	
High School Diploma	Aide GS-2							Libn GS-9*
Trade or Secretarial Course		Aide GS-2						
No High School Diploma	Aide GS-1		Aide GS-2	Aide GS-3	LMTA GS-4	LMTA GS-5	LMTA GS-6 or TIS GS-5	TIS GS-7

EXPERIENCE

*passing a competency examination to enter 1410 Libn series is required

APPENDIX B

QUALIFICATION STANDARDS
Clerical GS-300

Office Machine Operator (various positions) GS-1/3

Positions Covered by This Standard

A. Occupations requiring alphabetical keyboard proficiency as well as both significant clerical and machine skills:
   Cold Type Composing Machine Operator----------GS-324
   Bookkeeping Machine Operator----------GS-354
B. Occupations which require significant clerical as well as machine skills:
   Calculating Machine Operator----------GS-355
   EAM Operator----------GS-359
C. Occupations requiring primarily machine skills:
   Office Machine Operator----------GS-350

Description of Work

Persons employed in these positions have as their primary responsibility the operation of the specific office machine described in the individual job title, although clerical work of varying degrees is also involved in many such positions. Positions in the Office Machine Operator Series, GS-350, involve the operation of one or more types of office imprinting, duplicating, or reproducing machines, or miscellaneous office machines not specifically included in other series when such work is performed in an office or clerical situation.

Education and Experience Requirements

GS-1 - No experience or education required; however, the appropriate tests must be passed.
GS-2 - Must pass the appropriate written test and -
   Alternative 1 - Pass appropriate performance test.
      (Note: Alternative 1 is not available for Calculating Machine Operator, EAM Machine Operator, or Office Machine Operator because no appropriate performance tests have been prepared for these occupations at any grade level.)
   Alternative 2 - Have had 6 months of specialized experience.
   Alternative 3 - Have completed a specialized course of instruction in the operation of the appropriate machine plus any one of the following:
      a. 3 months of general or specialized experience, or
      b. graduation from high school.
GS-3 - Must pass the written test and the appropriate performance test (if any) and have had either (a) 1 year of acceptable experience of which at least 6 months is specialized experience, or (b) 1 academic year of business or secretarial school or junior college. For occupations for which no performance test is available, education offered under (b) must have included training in the operation of appropriate office machines.

Definition of Terms Used

General experience: Progressively responsible office machine operation, clerical, or other office experience in which the applicant demonstrated potential ability to work at the grade level of the position.

Specialized experience: Experience in the operation of the type of machine appropriate for the position for which application is made, with the following specific requirements for certain positions:

Office Machine Operator GS-350-2 -

Experience in operating any office machine is acceptable.

Calculating Machine Operator (Comptometer-Type) GS-355-2/3 -

Specialized experience must be on a comptometer-type of machine.

EAM Machine Operator GS-359-3 -

At least 3 months of the experience must have been in setting up electric accounting machines for operation including the wiring of plug boards and control panels from prescribed wiring diagrams, the setting of various control devices on the machines, the conducting of tests using test decks and other procedures to determine proper functioning of machines, and, when applicable, accuracy of wiring.

One academic year of business school: Thirty-six weeks of successfully completed full-time study is creditable as 1 academic year. ("Full-time study" normally will involve 20 clock hours per week.)

Specialized course if instruction: A formalized educational program or course intended to provide sufficient skill that the graduate can be considered to be a competent operator. The duration of the courses varies widely depending to a large degree on the prerequisites for entering the training, e.g., a typist can be taught card punching in 30 hours; it may take many times as long to teach a nontypist to operate a bookkeeping, card punch, or other alphabetical keyboard equipped machine.

Written Tests

All applicants are required to pass tests covering (a) verbal abilities and clerical abilities (alphabetizing and arithmetic) and (b) eye-hand coodination and perception of differences. All applicants for positions of operators of machines equipped with an alphabetic keyboard will be required to pass a performance test on a typewriter-style keyboard. Applicants for positions of EAM Operator must pass a test of abstract reasoning ability.

Higher scores may be required for the higher grades.

The tests may be waived for all inservice placement actions (but not for appointments outside the register) provided there is other adequate evidence of the ability of the applicant to perform the work to be assigned in a successful manner and provided, for grades GS-1 and GS-2, the alternate standard which followes is met. (Adequate evidence may consist of such things as: supervisory evaluations; performance on previous jobs or assignments; production records.)

Alternate Standard for GS-1 and GS-2 When the Tests are Waived

When the tests are waived in inservice placement actions, the following experience and education standards must be met:

GS-1 - Any one of the following:

a. Three months of specialized experience, or

b. Having completed a specialized course of instruction in the operation of the type of machine to be operated in the position to be filled, or
c. Any other educational background which is also acceptable at grade GS-2.

GS-2 - Any of the acceptable combinations of experience and/or education listed above under Alternatives 2 and 3 for this grade level.

Basis of Rating

Applicants will be ranked on the basis of (a) their score on the verbal abilities test, and (b) the extent and quality of their experience and education. Other required tests must be passed but are not used to rank the eligibles.

GENERAL NOTE AS TO APPLICABLE STANDS FOR POSITIONS ALSO REQUIRING SKILL IN TYPING OR STENOGRAPHY

Some office machine operator positions may require typing or stenographic ability but may be so constituted that the machine operator skills, rather than the typing or stenographic skills, form the paramount qualification requirements for positions. Positions so constituted are classified in the office machine operator series appropriate for the paramount requirement and are identified by the parenthetical addition of the words "typing" or "stenography" to the titles otherwise prescribed for those series. In actions involving such positions, the qualification standards established for the series in which the positions are classified, rather than the clerk-typist or clerk-stenographer standards, are to be used. An appropriate means should be used to assure that applicants possess sufficient skill in typing or stenography to perform the duties of such positions. The skill requirement need not be set as high as that required in the competitive standard for clerk-typist or clerk-stenographer, but rather should be set at the level which is required for successful performance in the specific position to be filled.

Physical Requirements

See part II, Physical Requirements, paragrpph 4. For all positions, applicants must possess emotional and mental stability.

QUALIFICATION STANDARDS
Library Technician Series[1] [2] GS-1411
Library Aid GS-1/3
Library Technician GS-4/7
Supervisory Library Technician GS-4/9

Description of Work

Positions in this series comprise what is essentially a support occupation. Library Aids and Technicians work in libraries where they provide support and assistance to professional Librarians. In the lower grades (GS-1/3) assignments frequently involve considerable clerical work and some manual labor. In the higher grades (GS-4 and above) assignments may be specialized or may involve supervisory or administrative responsibilities.

Positions in this series involve duties related to the following library functions: the mechanical preparation of library material; the physical upkeep of library material; care of shelves, files, and equipment; circulation work such as registering borrowers, explaining lending rules, reserving books for library users; acquisitions work such as ordering publications, preparation of book lists, routine correspondence; cataloging work such as making additions to serial shelf list and catalog records, temporary brief, or limited cataloging, processing added copies and new editions; answering factual or directional questions involving the use of standard reference tools and specific, readily available sources. When the library collection includes foreign language publications, positions may require ability to read or recognize identifying information (e.g., titles, authors, dates, etc., of publications) in one or more foreign languages. (For a more detailed discussion of duties performed by Library Aids and Technicians, see the classification standard for this series.)

Experience and Training Requirements

Applicants must have had general and specialized experience of the type described below, in the amounts indicated for each grade.

Grade	General experience (years)	Specialized experience (years)	Total experience (years)
GS-4----------	1	1	2
GS-5----------	1	2	3
GS-6----------	1	3	4
GS-7 and above-------	1	4	5

[1]Qualification standard for Clerk, GS-300-1/3, are to be used for filling position of Library Aid GS-1/3.

[2]This standard has been approved by the Administrator of Veterans' Affairs for use within the Veterans Administration under the provision of Section 4105, Title 38, U.S.C.

Note: For Supervisory positions, see the qualification standard in part III of this handbook for "Supervisory Positions in General Schedule Occupations."

General experience is progressively responsible clerical or office work of any kind which has demonstrated the ability to perform satisfactorily at the grade level of the position. General experience may also include work involved in the physical handling of library materials provided this gave the applicant some general knowledge of library rules , regulations and procedures.

Specialized experience is progressively responsible experience in a library which has included duties similar to those mentioned in the Description of Work paragraph above. Clerical work performed in a library (e.g., work classified to the Mail and File Series, GS-305, or to the Clerk-Typist Series, GS-322) may be credited as specialized experience provided the clerical work has demonstrated the applicant's ability to apply general library operating practices.

Excess specialized experience may be credited as general experience.

For first level supervisory positions, no supervisory experience is required, but supervisory aptitude must have been demonstrated (e.g., evidence of supervisory capacity may be measured by one of the methods described in the qualification standard for "Supervisory Positions in General Schedule Occupations."

Quality of Experience

Applicants for GS-4 positions must show: 6 months of specialized experience at a level of difficulty comparable to the next lower grade level in the Federal service. For GS-5 and above, applicants must show 1 year of specialized experience at a level of difficulty comparable to the next lower grade in the Federal service

For any grade level, the required amount of experience will not in itself be acceptable as final proof of qualification for a given grade level. The applicant's record of experience, education or training must show he has the ability to perform the duties and responsibilities of the position.

Substitution of Education for Experience

For a maximum of 3 years of the required experience (1 year of general plus 2 years of specialized experience) study successfully completed in a resident school or institution may be substituted as follows:

General experience only -

Successfully completed study in a school above the high school level may be substituted for experience on the basis of 1/2 academic year of study (i.e., 18 weeks of substantially full-time study, or 15 semester hours, or the equivalent in quarter or trimester hours) for 6 months of experience.

Specialized experience -

1. For the first year of specialized experience, study successfully completed in a resident school above the high school level may be substituted at the rate of 1/2 academic year of study for 6 months of specialized experience provided such study included subjects closely related to the position

being filled, e.g., in library science, in business administration, or training in office routines, or in a subject field appropriate for the library in which the position is located. A full 2-year course of study may be substituted for 2 years of the required experience (1 year general plus 1 year specialized) and is fully qualifying for the GS-4 grade level.

2. For the second year of specialized experience, study of the quality described in paragraph 1 above may be substituted at the rate of 1 academic year of study for 6 months of specialized experience. Therefore, a full 4-year course of this type of study may be substituted for a maximum of 3 years of the required experience (1 year of general plus 2 years of specialized experience) and is fully qualifying for the GS-5 grade level.

3. Study in library science courses completed in a resident institution above high-school level may be substituted for a maximum of 2 years of specialized experience on the basis of 3 semester hours of library science for 3 months of experience. Substitution on the same basis may also be made for the general experience.

Education and training other than that outlined above, e.g., specialized training as a library aid or technician in manpower development programs, at a school for library technicians, or through "in-house" courses, will be allowed appropriate credit, depending upon its applicability and extent.

No substitution may be made for the required supervisory experience or for the additional specialized experience required above the GS-5 level.

NOTE:

"School above the high school level" means an educational institution (e.g., business or commercial school or college, a secretarial school, a junior college, or a college or university) for which high school graduation or the equivalent is prerequisite and in which the applicant successfully completed study which was not primarily limited to courses in typing and/or stenography.

For the item under "General experience only" and items 1 and 2 under "Specialized experience" education in amounts less than one-half of an academic year are not substitutable for experience. "One academic year" consists of approximately 36 weeks of substantially full-time study, or 30 semester hours, or the equivalent. Semester hours gained in part-time study may be credited at the rate of 1/2 year for each 15 semester hours (or the equivalent in quarter or trimester hours).

Substantially full-time study in the case of business and commercial schools is the equivalent of at least 20 classroom hours of instruction per week.

Written Test

For competitive appointments at GS-4 and above, a written test is required. For competitive appointments at grades GS-1/3, follow the test requirements in the qualification standards for Clerk, GS-300-1/3. The written test should be waived for in-service placement accions at all grade levels.

Selective Placement

At GS-5 and above, Library Technicians sometimes specialize in the performance of duties concerned with acquisition, cataloging, reference, circulation, or serials work; or may be required to have some familiarity with

specialized terminology or ability to recognize identifying information on foreign language documents. In filling such positions, selection may be limited to those eligibles who have had experience in the appropriate work at a qualifying level of difficulty.

Special Requirements for Positions Involving Public Contacts

Some library aid or technician positions may involve substantial contact with others. Duties performed require a clear speaking voice, tact, courtesy, and capacity for effective public contacts. In filling such positions competitively and noncompetitively, appointing officers should assure themselves by reference checks, personal interviews, or other appropriate means that applicants possess these qualities to the degree necessary for satisfactory performance of the duties of such positions.

Suggestions for Evaluating Experience in In-Service Placement Actions

In ranking individuals for in-service placement actions, detailed facts about position requirements can be more easily established. As a result, in establishing lists of qualified candidates, it is possible to evaluate experience or training in a way that best relates to the demands of the position being filled. For example:

1) For a position requiring specialized experience in a particular function, such as cataloging, experience gained in cataloging titles being added to the collection would be ranked as top level experience. Experience gained in filing catalog cards would be ranked at a lower level, or non-qualifying, depending upon the requirements of the job.
2) For a position requiring the ability to identify and record titles in foreign languages, experience gained in searching for publications in the particular foreign languages required by the position would be ranked as top level experience. Experience gained in similar processing functions not requiring foreign language ability would be rated as non-qualifying
3) For a position requiring familiarity with legal terminology, content and classification scheme of a law library, experience gained in searching duties in a legal collection would be ranked as top level experience. Experience gained in searching duties in a general collection including some legal publications probably would be ranked at a lower level depending upon the extent of the legal collection.
4) Outside education or in-house training related to the requirements of the position would be ranked higher than other qualifying education, e.g., education or training in library work directly related to the position would be ranked higher than education or training in administrative work.

In evaluating candidates, it is suggested that information be secured from former supervisors to elicit information as to demonstrated abilities, type of work experience, and past responsibilities. Other things being equal, the greatest credit should be given to those with the broadest experience and to those who demonstrate the most potential for advancement.

Physical Requirements

See part II, Physical Requirements, paragraph 2.

QUALIFICATION STANDARDS
Technical Information Services Series GS-1412
Technical Information Specialist
Supervisory Technical Information Specialist
Technical Information Officer
(appropriate specialization)
GS-5/15

Specializations

The subject-matter knowledge for the Technical Information Specialist typically covers a broad field, rather than a deep subject knowledge and competence related to a specific discipline or field of interest, or a full knowledge of the state of the art. Some positions require foreign language proficiency to read documents published in languages other than English. The following specializations are authorized:

Subject specializations

Biological Sciences	Education	Business and Industry
Medical Sciences	Fine Arts	Engineering
Physical Sciences	Humanities	Law
Social Sciences	Music	

Foreign language specializations

Romance	Germanic	Arabic
Slavic	Oriental	

Description of Work

Positions involve work concerned with analyzing and transmitting the intellectual content of scientific, technological, or other specialized information. The specialists perform a variety of functions, or the work may be specialized in one functional area. Duties include acquisition, analysis of subject content of the documents acquired, indexing and preparation of abstracts or extracts. Some positions involve responsibility for terminology control, such as development of thesauri, lists of descriptors, subject heading lists, etc. Other employees analyze questions from users and perform literature searches; they prepare replies in the form of documents, bibliographies, or specific answers or units of information. Also included are duties and responsibilities involved in the direction, administration, or coordination of technical information services.

Some assignments include the application of specific techniques or the performance of limited aspects of the work of the professional librarian. These employees have knowledge of a professional, technical, or other specialized subject matter, and, in most cases, are taught the required library techniques on the job.

Some assignments require understanding and application of the special techniques, methods, and devices of a semi- or fully-automated documentation system.

Basic Requirements

For grade GS-5 -

As a basic requirement, applicants must have education or experience as described under A, B, or C below.

A. A full 4-year course of study in an accredited college or university which meets all academic requirements for a bachelor's degree, and (1) which has included at least 24 semester hour credits in the physical sciences, biological sciences, social sciences, or other specialized subject-matter field, for which the applicant is being considered; or (2) in any combination of subjects which included at least 15 semester hour credits in a major subject (such as physics or chemistry) which is especially applicable to the position for which the applicant is being considered.

B. Four years of successful and pertinent experience of such nature and level to provide (1) a knowledge of the basic principles, theories, practices, techniques, terminology and expressions of a discipline or subject-matter field; an understanding of the standard methods, procedures, and techniques of research and analysis in the subject-matter field; ability to acquire additional information about the field and related fields; and some knowledge of literature resources in the field; and, where appropriate, (2) ability to read and comprehend nontechnical material in one more foreign languages. Such experience should be equivalent to that which would have been acquired through successful completion of a full 4-year curriculum in an accredited college or university with major study in appropriate subjects, or combination of subjects, as specified in item "A" above.

C. Any time equivalent combination of experience as described in item "B" with education as described in item "A."

For grades GS-7 and above -

In addition to meeting the experience or education requirements or GS-5, applicants for higher grades must have the amount and kind of advanced experience indicated below:

Grade:	Years of advanced experience
GS-7	1
GS-9	2
GS-11/15	3

Advanced experience consists of the performance of work which has provided the applicant with the professional, technical, language, or other specialized knowledges and abilities to perform the work of the particular position for which he is being considered. The work experience should demonstrate the applicant's capacity:

a) to perform, supervise, or direct one or more of the functional areas of work covered by this series, e.g., indexing, preparing abstracts, performing literature searches, preparing bibliographies, developing thesauri or lists of descriptors, etc.; or
b) to acquire an understanding of abstract ideas and theoretical concepts; to keep informed and recognize changes, advancements and new developments

in the particular field; to recognize and understand subtle variations and deviations from standard practices or those which are significant from a research point of view; to understand and recognize the co-relationship of information in related fields; to make refined observations and to recognize or interpret scientific implications; to learn about current research efforts in the area of concern; to keep abreast of new methods or techniques, new equipment or systems; to maintain up-to-date information on the state of the art; and/or

c) to read or translate material in two or more foreign languages, requiring a specialized vocabulary (e.g., technical, legal, scientific, or other subjects of comparable difficulty) and knowledge and comprehension of the subject matter.

Advanced experience may have been gained in positions requiring substantial subject-matter knowledge of the field(s) and/or foreign languages involved such as:

a. Technical Information Specialist (such as indexer, abstracter, literature searcher, bibliographer);
b. Librarian;
c. Technical Writer or Editor;
d. Intelligence Specialist;
e. Translator;
f. Professor, teacher, instructor of college level courses;
g. Subject-matter specialist (such as chemist, biologist, psychologist, engineer, attorney, etc.).

Substitution of Education for Advanced Experience

Full-time* graduate education may be substituted for experience on the following basis. The education must have equipped the candidate with the knowledge and ability to perform fully the work of the position for which he is being considered.

a. For 1 year of advanced experience. - One full academic year of graduate education in a subject field directly applicable to the position. (This amount and kind of education meets all the requirements for grade GS-7.)
b. For 2 years of advanced experience. - Completion of all requirements for a master's or an equivalent degree, or 2 full academic years of graduate education, which is in a subject field directly applicable to the position. (This amount and kind of education meets all the requirements for grade GS-9.)
c. For 3 years of advanced experience. - Completion of all requirements for a doctoral degree (Ph.D., or M.D. or equivalent, or 3 full academic years of graduate education, which is in a subject field directly applicable to the position. (This amount and kind of education meets all the requirements for grade GS-11.)

---

*Part-time graduate education is also accepted at the rate of 30 semester hours (or the equivalent) for 1 year of specialized experience.

d. Alternate requirements. -

1) Superior academic achievement at the baccalaureate level is qualifying at grade GS-7. The pertinent criteria in section III of part II, Instructions to Users, of this handbook must be met.

2) Completion of a total of at least 6 years of legal and pre-legal education which meets all the requirements for an LL.B. or J.D. degree will provide eligibility in full at grade GS-9 for positions requiring legal knowledges.

Level and Quality of Experience

For grades GS-11 and below, at least 6 months of the required advanced experience must have been at a level of difficulty comparable to that of the next lower grade, or 1 year must have been at a level of difficulty comparable at least to that of the second lower grade in the Federal service. For grades GS-12 and above, at least 1 year of the required advanced experience must have been at a level of difficulty comparable to that of the next lower grade in the Federal service.

For any grade, the required amount of experience will not in itself be accepted as proof of qualification for a position. The quality of experience, rather than the length of time employed, will be given primary consideration. The applicant's total education and experience must give positive evidence of ability to perform adequately the duties of the particular position for which he is rated eligible.

When education is combined with experience in order to meet length of experience required for any given grade, the applicant must have had the quality of experience appropriate for that grade.

Supervisory and Officer Positions

For supervisory positions, see the qualification standard for "Supervisory Positions in General Schedule Occupations," in part III of this handbook.

For "technical information officer" positions, candidates must meet all other requirements for the grade of the position and also show that they possess administrative and managerial ability. Typically, at higher grade levels, management responsibilities increase and there is less pre-occupation with direct line supervision of detailed technical information services work. Candidates for "officer" positions must have demonstrated, for example, the ability to perform successfully duties such as planning, organizing, directing, coordinating, or developing programs, work methods, and procedures; planning or conducting management studies; estimating requirements for staff and supplies; and coordinating activities among different units.

Written Test

No written test is required for positions above grade GS-7 for competitive or in-service placement actions.

Competitive appointments to grades GS-5 and GS-7 will be made on the basis of selective certification from the current register resulting from the Federal Service Entrance Examination. Where scientific and technical subject-matter knowledge is required, an appropriate register which is currently in existence will be used.

Basis of Rating

Applicants for grades GS-9 and above will be rated based on an evaluation of the applicants' experience, education, and training.

Physical Requirements

See part II, Physical Requirements, paragraph 3; in addition, applicants must possess emotional and mental stability.

QUALIFICATION STANDARDS

LIBRARIAN SERIES

Librarian
Administrative Librarian
Supervisory Librarian
Library Director
(with specializations as appropriate)
Grades GS-7/15
Librarian Trainee
(Special provision at GS-5)

Description of Work

Positions involve work that primarily requires a full professional knowledge of the theories, principles, and techniques of librarianship. An inherent requirement of these positions is a knowledge of literature resources. Such work is concerned with the collection, organization, preservation, and retrieval of recorded knowledge in printed, written, audio-visual, film, wax, near-print methods, magnetic tape, or other media. Typical library functions include one or more of the following: selection, acquisition, cataloging and classification of materials, bibliographic and readers' advisory services, reference and literature searching services, library management and systems planning, or the development and strengthening of library service. Some positions may involve work in connection with the development of information retrieval systems.

Specializations

Since many libraries are highly specialized, the work often lies chiefly in one subject-matter field, or closely related subject areas. To serve subject specialists who are the principal users of these libraries, some librarians require a knowledge of a specialized subject or field of endeavor. Such subject-matter knowledge typically covers a broad field, rather than a deep subject knowledge and competence related to a specific discipline or a full knowledge of the state of the art. Because materials in libraries are often in foreign languages, some librarians also must have a proficient knowledge of one or more foreign languages.

To provide qualified personnel for librarian positions requiring knowledge of a subject-matter field and/or proficient knowledge of several foreign languages, the following specializations are authorized:

Subject-matter specializations:

Biological Sciences
Medical Sciences
Physical Sciences
Social Sciences
Business and Industry
Engineering
Education
Fine Arts
Humanities
Law
Music

Foreign language specializations

Germanic	Slavic
Oriental	Arabic
Romance	

Experience and Education Requirements

All librarians must meet the requirements for professional education in library science or possess equivalent experience as shown in IA, IB, IC, or IIA, below. The usual way of entering the profession is to qualify at grade GS-9 on the basis of a master's degree in library science. However, it is possible to qualify for entrance at the GS-7 level on other bases as indicated.

For Librarian (appropriate specialization) positions all candidates must also meet requirements which are directly related to the subject-matter or language of the specialization. These requirements are in addition to the basic professional library science requirements which apply to all positions. However, these requirements may be included within, or may be supplemental to, those specified for all positions at GS-7 and GS-9. The basic specialized subject-matter or language requirements for Librarian (appropriate specialization) positions are defined below at the grade GS-7 level.

I. Requirements for Librarian positions, GS-7

To qualify for all Librarian GS-7 positions, the applicant must meet the requirements specified in paragraphs A, B, or C below. (Note: Applicants who qualify under provisions of paragraphs A or B will not be required to take a subject-matter test in library science.)

A. Completion of 1 full academic year of graduate study in library science in an accredited college or university, in addition to completion of all work required for a bachelor's degree; or

B. Completion of all requirements for a "5th-year" bachelor's degree in library science. In addition, the applicant must have had at least 1 year of library experience which included the performance of duties in one or more functional areas of librarianship at the GS-5 or higher grade level; or

C. A total, on some combination, of not less than 5 years of college-level education, training, and/or experience. To qualify on this basis, the applicant must establish conclusively that the education, training, and/or experience has provided a knowledge and understanding of the theories, principles, and techniques of professional librarianship; a knowledge of literature resources; and the knowledges and abilities essential for providing effective library services. Under this provision:

1) Applicants must pass a subject-matter test in library science
2) If the applicant qualifies on the basis of a college level education, he must have had at least 1 year of library experience

comparable in difficulty and responsibility to that of a GS-5 or higher level library technician, technical information specialist, or subject-matter specialist (e.g., a chemist) performing library services.

3) If the applicant qualifies on the basis of experience alone, with no college level education or training, he must have had at least 2 years of library experience comparable in difficulty and responsibility to that of a GS-5 or higher level library technician.
4) The applicant may qualify under any time and quality equivalent combinations of the requirements shown in paragraphs (2) and (3).
5) For the purpose of evaluating education, a full year of study is defined as a minimum of 30 semester hours credit (or equivalent). Specialized training, e.g., training at a school for library technicians or through "in-house" courses, will be allowed appropriate credit depending upon its applicability and extent.

To qualify for Librarian (appropriate specialization) positions GS-7, the applicant must also possess specialized knowledges of a subject-matter field and/or proficiency in one or more foreign languages which are directly related to the positions being filled. When such knowledges are required by the position, the applicant's education or experience must have included or been supplemented by the requirements specified in one of the paragraphs below:

a) A full 4-year course of study in an accredited college or university which meets all academic requirements for a bachelor's degree, and also (1) has included at least 24 semester hour credits in the specialized field for which the applicant is being considered, e.g., physical science, biological science, social science; or (2) has included any combination of subjects with at least 15 semester hour credits in a major subject (such as physics or chemistry) which is especially applicable to the position for which the applicant is being considered; or
b) Completion of at least 24 semester hours of legal study in an accredited law school for positions primarily concerned with providing library services in law or legislative reference; or
c) Four years of successful and pertinent experience of such nature and level to provide a knowledge of the basic principles, theories, practices, techniques, terminology and expressions of the appropriate discipline or subject-matter field; an understanding of the standard methods, procedures, and techniques of research and analysis in the subject-matter field; ability to acquire additional information about the field and related fields; and some knowledge of literature resources in the field. Such experience should be equivalent to that which would have been acquired through successful completion of a full 4-year curriculum in an accredited college or university with major study in appropriate subjects, or combination of subjects, as specified in item "(a)" above; or legal training as specified in item "(b)" above, or
d) Any time equivalent combination of experience as described in item "(c)" with education as described in item "(a)" or "(b)" above.

e) Demonstrated ability as shown by education or experience to read or translate information from one or more foreign languages into English.

II. Requirements for Librarian positions, GS-9

A. Completion of all requirements for a master's degree or 2 full academic years of graduate study in library science, in an accredited college or university, meets all requirements for Librarian positions, GS-9.

B. In addition to meeting one of the requirements for GS-7 (A, B, or C above) must have had professional or advanced experience or graduate study as follows:

1) One year of professional experience in librarianship which included the performance, supervision, or administration of one or more major functional areas of librarianship (i.e., selection, acquisition, cataloging and classification of materials, bibliographic and readers' advisory services, reference and literature searching services, library management, systems planning, or development and strengthening of library services).

Some positions are highly specialized in one functional area, and may require that the advanced experience be in the appropriate function to qualify at these higher grade levels.

2) One year of professional or advanced experience in the subject matter or language which has provided the applicant with the professional, technical, language, or other specialized knowledges and abilities required by the particular position for which he is being considered. Such experience may have been gained, e.g., as a specialized librarian; or as a subject specialist, professor or teacher, translator, technical writer or editor, literature searcher, indexer, or abstracter, etc., in the particular subject-matter and/or language area.

Graduate education in a subject-matter field which is especially applicable to the position, and provides knowledges required to perform the duties of the position, as follows:

a) Completion of all requirements for a master's degree; or
b) Two full academic years of graduate education.

III. Requirements for Librarian positions, GS-11 and above

A. In addition to meeting the requirements for GS-9 (either A or B) candidates must have had either:
1) One year of professional experience in librarianship; or
2) One year of professional or advanced experience in a subject-matter or language area appropriate to the position.

B. Completion of all the requirements for a doctoral degree (or equivalent) or 3 full academic years of graduate education in library science.

C. In addition to possessing professional education in library science (or equivalent experience) as required for entrance at grades GS-7

or GS-9, candidates must have completed graduate study in a subject-matter or language area appropriate to the position as follows:
1) All requirements for a doctoral degree (Ph.D. or equivalent); or
2) Three full academic years of graduate education.

IV. Combinations of professional experience and graduate education

Equivalent combinations of professional experience and graduate education of the types described above are acceptable at each grade. (Thirty semester hours, or the equivalent, of part-time graduate education may be considered to be equal to 1 year of full-time graduate education.)

Quality of Experience

For grades GS-11 and below, at least 6 months of the required experience must have been at the level of difficulty comparable to that of the next lower grade, or 1 year comparable to the second lower grade, in the Federal service. For grades GS-12 and above, at least 1 year of the required experience must have been at a level of difficulty comparable to that of the next lower grade in the Federal service.

Supervisory and Administrative Positions

For supervisory positions, see the qualification standard for "Supervisory Positions in General Schedule Occupations," in part III of this handbook.

For positions concerned with administration, management, or direction of library programs candidates must meet all other requirements for the particular grade and also show that they possess the required administrative and/or managerial ability to perform successfully the duties of such positions. Education, training, or experience of the candidate should demonstrate, e.g., ability to manage or direct a library, group of libraries, or library system; ability to plan, organize, and direct the development and execution of library programs, policies, and procedures; ability to plan or conduct management studies, public relations and educational activities; ability to plan, develop and carry out administrative activities of the library or library system concerned with budget and finance, personnel, plant and equipment, etc.

Basis of Rating

All competitors who meet the education and experience requirements for GS-7 and above, who pass the written test in library science when required, will be rated based upon an evaluation of their experience and training in library work. The library science written test, when required, will be used for qualification purposes only.

Evaluating Experience and Training

In evaluating experience and training, consideration will be given to the type, level, and scope of experience relating directly to the particular position or positions under consideration, as indicated in the application, and to any additional pertinent information obtained from references, employees, associates and colleagues.

In evaluating experience for Librarians GS-13 through GS-15, specifically,

primary consideration will be given to the extent to which applicants possess the following knowledges and abilities:

1. Understanding of the techniques and methods of library science.
2. Knowledge of a specific subject-matter field.
3. Ability to plan a library program to meet the needs of the agency.
4. Ability to carry out broad library programs.
5. Ability to plan and coordinate the work of assistants.
6. Ability to train and develop a staff.
7. Ability to maintain good working relationships with the staff and other associates.
8. Leadership in the field of library science.

Nonqualifying Experience and Training

No credit will be given toward meeting the experience requirements for positions in this series for work in the following situations:

1. Work with collections of fiction, recreational or other reading material where no formal cataloging or classification of material is performed.
2. Experience in wholesale or retail bookstores, circulating fiction and club libraries, or hospital record departments.
3. Experience as a library page, as a library attendant or as a clerical worker, even though the duties included such work as charging and discharging books or typing catalog cards or orders for books and materials.
4. Nonprofessional work in a library on a part-time basis (e.g., military duty) or on a volunteer basis.
5. No credit will be given for training in the particular use of libraries and library facilities such as is given in orientation courses to college freshment

Written tests

Applicants for all grades who (1) have a master's degree or the required education in library science, or (2) have a 5th-year bachelor's degree in library science, will not be required to take a written test.

Applicants for all grades who qualify on the basis of experience alone or a combination of experience and education must pass a subject-matter test in library science. This written test is designed to measure the candidate's knowledge of the fundamentals underlying professional library science and his understanding of its methods and techniques and their applications to effective library science. Questions will be asked on facts, principles, applications, tools, practices, and theory of professional librarianship as found in a variety of libraries (e.g., book selection; cataloging and classification; reference and bibliography; circulation and related services).

When the subject-matter test is required it may not be waived in in-service placement actions except when (1) the employee was properly appointed as a qualified librarian and is currently serving in a GS-1410 librarian position, or (2) has previously served at least 6 months in a GS-1410 librarian position as a result of eligibility gained as a qualified librarian under an appropriate examination and is being reassigned to a librarian position. (Note: Individuals appointed as Librarian (Trainee) will be required to take the subject test for promotion to GS-7 when they do not possess or acquire the educational requirements specified in paragraphs A or B for grade GS-7.)

Special Provisions

A. For all librarian positions -

At GS-9 and above, Librarian positions concerned with acquisition, cataloging, or reference work are sometimes highly specialized. In filling these positions, consideration may be limited to those eligibles who have had experience in the appropriate specialization at a qualifying level of difficulty.

B. For librarian positions requiring specialized subject or language knowledges -

In filling positions at any grade level which call for a knowledge of foreign languages or special subjects such as law, medicine, physical sciences, etc., selection must be made from among eligibles who are qualified in these special areas.

Special Provision for Filling Positions or Librarian (Trainee), GS-5

There is a special provision which may be used when there is a shortage of candidates who are fully qualified for GS-7 level librarian or librarian (appropriate specialization) positions. This provision is included because of the reported dearth of fully-qualified librarians. It is intended for use in those situations where the Librarian (Trainee) can be expected to complete his/her education or training in library science within a reasonable period of time, and thus meet requirements for librarian positions at the GS-7 level.

Under this provision, applicants for positions of Librarian (Trainee), GS-5 must meet the following requirements: completion of a full 4-year course of study in an accredited college or university which meets all academic requirements for a bachelor's degree, or equivalent experience.

- Qualification of candidates under this provision is demonstrated by eligibility on a civil service register, or an appropriate subject-matter register (e.g., the Chemist register for Librarian (Trainee) positions requiring some knowledge of chemistry). Appointing officers may request certification of eligible candidates with major study in a subject-matter field which is considered appropriate for the position being filled.

Individuals hired as Librarian (Trainee), GS-5, may not be employed or promoted to a position of Librarian GS-7 until they fully meet the requirement specified for GS-7 librarian positions.

Physical Requirements

See part II, Physical Requirements, paragraph 2; in addition, applicants must possess emotional and mental stability.

APPENDIX C - DATA COLLECTION INSTRUMENTS

UNIVERSITY OF MARYLAND
COLLEGE PARK 20742

SCHOOL OF LIBRARY AND INFORMATION SERVICES PHONE: (301) 454-3018

December 14, 1972

Dear SOLIT Member:

The School of Library and Information Services is participating in a survey of the education, training and employment of Library Technicians. The goal of this study is to investigate alternative educational patterns for improving career mobility of library employees.

The information requested on the enclosed questionnaire will provide valuable insights to the present situations of library technicians in this area. Ms. Evelyn Brownlee, President of SOLIT, has kindly suggested the membership of SOLIT as one good source for this information. The questionnaire will only take about 15-20 minutes of your time, but the information you provide will be of great benefit in this study.

Would you please help by completing the questions and returning them in the enclosed stamped, self-addressed envelope by January 4, 1973. A summary of results will be made available through SOLIT.

Sincerely,

Charles R. Anderson

INSTRUCTIONS

1. Please use pencil so that you can easily change any answer.

2. Unless there is a specific "SKIP" instruction, please answer every question by placing a (X) or a statement when called for in the appropriate place.

3. Do NOT include your name on this questionnaire. There will be no connection between completed questionnaire and the person filling it out, thus you may be assured of complete confidentiality.

4. If more space is needed to answer any question, please use question 21.

---

1. Sex: Female_____ Male_____

2. Age:_____(years)

3. Marital Status: Single_____ Married_____ Divorced_____ Widowed_____

4. Are you presently employed in a library? Yes_____ No_____

5. Are you employed: Full-time_____ Part-time_____

6. What is your present annual salary?_____

7. What is the title of your present position?_____

8. If in government service, what is your GS rating?_____

9. How long have you worked in this position? Years_____ Months_____

10. What other positions have you had in libraries?

Title	Length of service
_____	_____
_____	_____
_____	_____
_____	_____

11. What type of library do you work in? Academic_____; School_____;
Public_____; Special_____; Federal_____.

(If Federal, check one: National_____; Departmental_____; Other_____.

12. Circle the highest grade of school completed.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17+

12a. If more than 12, what was your major?_____

12b. Have you attended any other schools?

Trade_____; Vocational_____; Business_____.

Other (specify)_____.

13. Do you have a degree in any of the following:

a. Associate of Arts (or Science) in Library Technology_____
b. Bachelor of Arts (or Science) in Library Science_____
c. Master of Arts (or Science) in Library Science_____
d. Other (specify)_____.

14. Have you had any of the following:

a. In-service training courses_____
If so, please list course titles: _____

_____

_____

b. Job-related courses at educational institutions_____
If so, please list courses and credits:

Course Title	Credits (Semester hours)
_____	_____
_____	_____
_____	_____
_____	_____

15. In column A of the following list, please indicate with a (X) the tasks you usually perform in your job. Then, if you have had in-service training and/or college courses in Library Science, please use Column B and C to rate how well you feel this training prepared you for each of the tasks you checked in Column A. (If no training or college courses SKIP to Question 18 after completing Column A.

	Column A		Column B			Column C		
			In-Service Training			College Courses		
			Excellent	Good	Poor	Excellent	Good	Poor
a.	Type cards/forms	___(a)	___	___	___	___	___	___
b.	Assist readers	___(b)	___	___	___	___	___	___
c.	Instruct people how to use library	___(c)	___	___	___	___	___	___
d.	Maintain circulation records	___(d)	___	___	___	___	___	___
e.	Search catalogs	___(e)	___	___	___	___	___	___
f.	Shelve library materials	___(f)	___	___	___	___	___	___
g.	Type correspondence	___(g)	___	___	___	___	___	___
h.	Repair and mend books	___(h)	___	___	___	___	___	___
i.	Search order files	___(i)	___	___	___	___	___	___
j.	Supervise personnel	___(j)	___	___	___	___	___	___
k.	Photocopy library materials	___(k)	___	___	___	___	___	___
l.	Catalog books	___(l)	___	___	___	___	___	___
m.	Verify references	___(m)	___	___	___	___	___	___
n.	Prepare journals for binding	___(n)	___	___	___	___	___	___
o.	Conduct literature searches	___(o)	___	___	___	___	___	___
p.	Maintain bookkeeping records	___(p)	___	___	___	___	___	___
q.	Choose subject headings for books/articles	___(q)	___	___	___	___	___	___
r.	Choose publications to buy	___(r)	___	___	___	___	___	___
s.	Prepare bibliographies	___(s)	___	___	___	___	___	___
t.	Determine library policy	___(t)	___	___	___	___	___	___
u.	Prepare inter-library loan forms	___(u)	___	___	___	___	___	___
v.	Prepare library budget	___(v)	___	___	___	___	___	___
w.	Keypunch library records	___(w)	___	___	___	___	___	___
x.	Work with data processing equipment	___(x)	___	___	___	___	___	___

16. Do you think the in-service training courses have been, or will be, beneficial in:

    a. job advancement within your library? Yes_____ No_____
    b. job advancement elsewhere? Yes_____ No_____

17. Do you think the job-related courses at educational institutions have been, or will be, beneficial in:

    a. job advancement within your library? Yes_____ No_____

18. Do you think more in-service training courses in your library are needed?

    Yes_____ No_____

    18a. If yes, do you have any suggestions for specific courses?

    _____

    _____

    _____

19. In your present job does your employer encourage you to take:

    a. in-service training courses? Yes_____ No_____
    b. job-related courses at educational institutions? Yes_____ No_____

20. Would you take job-related courses at a college or university -

    a. if you were allowed time off the job to attend classes but had to pay your own tuition? Yes_____ No_____
    b. if you were allowed time off and your employer paid your tuition? Yes_____ No_____
    c. if you had to attend classes on your own time but employer paid tuition? Yes_____ No_____
    d. if you had to attend classes on your own time and had to pay your own tuition? Yes_____ No_____

21. Please use the following space for any additions or comments.

    _____

    _____

    _____

    _____

    _____

SCHOOL OF LIBRARY AND INFORMATION SERVICES
UNIVERSITY OF MARYLAND
COLLEGE PARK, MARYLAND 20742

Interview Guide

This interview was conducted at _____,
(organization or institution)

_____, _____, _____,
(address) (city) (state and zip code)

with _____. Date: _____.
(officials name and title)

Phone: _____

Interviewer's name:

_____

A. Introduction

This interview is being conducted by the School of Library and Information Services in connection with a study of "Alternative Educational Patterns for Career Opportunities." This study is being made under a joint research agreement between the University of Maryland and the National Agriculturel Library. The information provided through this interview will furnish valuable information about job functions and educational requirements for personnel in Federal libraries. All information furnished will be held in strict confidence.

B. Type of library

1. Subject specialty (check one)

_____medical/health sciences

_____law

_____physical sciences, engineering

_____business

_____other (specify)

2. Nature of parent organization (specify)

_____

C. Staffing (Reference period: end of fiscal year closest to June 30, 1972 and June 30, 1967 or end of calendar year 1972 and 1967).

PLEASE COMPLETE QUESTION C1 BEFORE THE INTERVIEW

1a. How many persons are employed in this library?

b. How many were employed in 1967?

Do NOT count maintenance personnel, volunteers, or student assistants in any of the totals or subtotals. All other staff members should be classified in the most appropriate occupational category: Librarian, Specialist, Technical Assistant, Clerk, Other (specify). Descriptions for each occupational category appear on enclosed staff position list; personnel who fit none of the library occupation descriptions should be classed as "Other." Data should be presented, if possible, for full-time and part-time personnel and for full-time equivalent (FTE) positions. Please indicate the source of the 1967 data by checking the appropriate box.

_____personnel records _____estimate

Staff position	No. of employees in 1972				No. of employees in 1967			
	Total	Full-time	Part-time	FTE	Total	Full-time	Part-time	FTE
Total								
Librarians								
Specialists								
Technical assistants								
Clerks								
Other (specify)								

PLEASE COMPLETE QUESTION C2 BEFORE THE INTERVIEW

2. Estimate the percentage distribution of library personnel in each of the 4 staff positions:

   a. By sex
   b. By race

Sex	Librarians	Specialists	Technical assistants	Clerks
Male				
Female				
Race				
White				
Negro and other races				

3. What changes have taken place over the last 5 years in the distribution of library staff by sex, race, and age?

4. What factors influenced these changes?
   a. Internal factors - e.g., recruitment, personnel policy, salary level

   b. External factors - e.g., supply of qualified applicants, economic conditions

5. Minority groups

   a. Does your library have a recruitment program aimed at increasing the number of minority group members on your staff?

   b. If yes:

      (1) Discuss recruitment methods.

      (2) What staff positions are you recruiting for?

      (3) Discuss difficulties encountered in minority group recruiting program.

D. 'Job Functions

1. Discuss the changes, if any, which have taken place during the past 5 years in the duties performed by:

   a. Librarians

   b. Specialists

   c. Technical Assistants

   d. Clerks

2. Describe shift of duties from one staff position to another over the past 5 years.

3. Describe any changes in duties expected to take place over the next 10 years.

4. Do you anticipate any shift of duties from one staff position to another over the next 10 years?

5. Describe any new or emerging occupations in terms of the duties performed.

PLEASE COMPLETE QUESTION E1 BEFORE THE INTERVIEW

E. Education and Training (Reference period: end of fiscal year closest to June 30, 1972, or end of calendar year 1972).

1. What is the educational level attained by your present staff? (Enter number of employees by staff position and highest level of education attained. Do NOT include maintenance personnel; personnel classified as "Other" in question C1; student assistants; or volunteers.)

	STAFF POSITION			
	Librarian	Specialist	Technical assistant	Clerk
Total				
Less than high school graduate				
High school graduate				
Some college - no earned degree				
Associate degree Area of concentration Library Science Other				
Bachelor's degree Area of concentration Library Science Other				
Graduate degree(s) Area(s) of concentration Library Science Other Double degree - Library and other curriculum				

2. Are your basic minimum requirements at the entry level for persons in each of the following staff positions the same as U.S. Civil Service requirements as outlined in the Qualification Standards? If not, please indicate:

	Education	Experience
Librarian		
Specialist		
Technical assistant		
Clerk		

3. Beyond the minimal entry requirements, as specified in civil service descriptions, what qualifications do you seek? e.g., additional education, experience, personal characteristics, etc.

4. Regarding the educational background of your staff, are there any areas:

   a. In which they lack necessary preparation for the work they do? If so, which areas?

   b. In which their preparation overqualifies them for the work they do? If so, which areas?

5. How well do library education and training programs prepare graduates for work in your library? Are there any areas in which the library feels current training is inadequate or irrelevant? If so, what areas?

6. Looking ahead, do you expect the library personnel you hire over the next 10 years to have about the same educational qualifications as your present staff? If not, what changes in educational preparation of your staff do you anticipate? (Specify by staff positions.)

7. Describe any new or emerging occupations in terms of the qualifications (educational and otherwise) necessary.

8. Describe the pattern of advancement (career ladder) within each staff position; from one staff position to the next. (Consider formal education; on-the-job training; experience. Specify length of time, if established.)

9. Identify and discuss your current manpower problems.

F. Supply (Reference period: fiscal year closest to June 30, 1972, or calendar year 1972).

PLEASE COMPLETE QUESTIONS F1 and F2 BEFORE THE INTERVIEW

1. Was the number of staff positions reduced during the past year? By how many?

	Number
Librarians	
Specialists	
Technical assistants	
Clerks	

2a. How many positions were filled during the past year?

	Number
Librarians	
Specialists	
Technical assistants	
Clerks	

b. Indicate the sources of personnel placed during the past year. Please enter each new hire (or promotion or transfer) only once; if more than one source applies, mark the one which appears first on the list.

Source	Librarians	Specialists	Technical assistants	Clerks
New Graduates library programs non-library programs				
Promotions within the library				
Transfers within this employment setting				
Transfers from other libraries School Academic Public Special				
Transfers from non-library occupations				
Re-entrants to the labor force				
Other (specify)				

3. Discuss how this hiring pattern differs from that 5 years ago.

4. In the last 5 years, how have your actual hiring experiences related to the qualifications you were seeking?

5. In what occupations do you currently experience difficulty obtaining qualified personnel?

   What are the reasons?

   a. general shortage of trained personnel
   b. salary structure
   c. recruitment problems (e.g., location)
   d. constraints imposed by civil service or personnel department regulations
   e. other (specify)

6. What do you do if you cannot get a qualified individual for a position?

   a. Hire persons with less than the desired qualifications and train on-the-job?
   b. Help existing staff to obtain additional formal education
   c. Leave the position vacant until a qualified person becomes available
   d. other (specify)

7. In what positions do you currently experience no difficulty in obtaining qualified personnel?

G. Requirements

1. Have you developed projections of library employment needs for the future? If so, what are your anticipated needs? On what criteria are these needs based?

I. Interviewer's Comments

NAME OF INSTITUTION:

ADDRESS:

Name of person filling out this form_____

Telephone Number_____

ENROLLMENT AND GRADUATION

	1971/1972	1972/1973	1973/1974 (est.)
a. Number of full-time students			
b. Number of part-time students			
c. Total number of students (a+b)			
d. Full-time equivalent of part-time students			
e. Total full-time equivalent students (a+d)			
f. Graduates			
1. Certificates			
2. Degrees			

PLACEMENT 1971/1972

a. Number employed as a direct result of enrollment_____

b. Beginning salaries paid LTAs as of Fall, 1972 (number for each range)

1. Below $3000_____
2. $3100 to $4000_____
3. $4100 to $5000_____
4. $5100 to $6000_____
5. $6100 to $7000_____
6. $7100 to $8000_____
7. $8100 to $9000_____
8. $9100 to $10,000_____
9. over $10,000_____

BIBLIOGRAPHICAL NOTE

There is no dearth of literature on the subject of education and training of library workers at pre-professional levels. The following bibliography contains less than half the total number of citations on this subject listed in available indexes. Many citations, however, would be of value only to a historian. Therefore, this bibliography excludes most of the one-paragraph "news notes" and other items of peripheral interest. In addition to a literature search of Library Literature, Library and Information Science Abstracts, Education Index, Dissertation Abstracts, and research in progress listed in The Journal of Education for Librarianship, an on-line computer search of the ERIC data base was performed.

The bibliography is classified in a scheme which was intended to provide a facile approach to further research on the project "Alternative Educational Patterns for Career Opportunities." The outline of this classification follows:

1.0 Bibliographies
2.0 Library/Media Technical Assistants
    2.1 Historical Development
    2.2 General Background
    2.3 Education
        2.31 Guidelines, Curriculum, and Evaluation
        2.32 Individual Programs
    2.4 The LMTA in Canada
3.0 Types of Libraries
    3.1 School Libraries
    3.2 Public Libraries
    3.3 College and University Libraries
    3.4 Special Libraries
4.0 Supplement

Arrangement within section 2.1, "Historical Development," is chronological; in all other sections items are arranged alphabetically by author and/or title.

Items unavailable for examination are indicated by an asterisk. Information on availability of materials from the ERIC Document Reproduction Service is given when possible, including accession number and price for micro-fiche (MF) and hard copy (HC). Doctoral dissertations included which could not be identified as completed and accepted for the Ph.D. degree are listed with dates as given in the issues of Journal of Education for Librarianship. Given the classified nature of the bibliography, an author index is provided.

1.0 Bibliographies

1. Boelke, Joanne. Library technicians: a survey of current developments. Minneapolis: University of Minnesota, 1968. 9 pp. (ERIC/CLIS Review Series Number 1).
   4 page essay, 43 items covering 1962-1968.

2. Giles, Frederic T. The library technician and the American junior college: an annotated bibliography. Seattle, Washington: Washington University, Center for Development of Community College Education, 1968. 35 pp.
   60 items for the administrator and librarian concerning recruitment and training, 7 items concerned with library technician in the health sciences.

*3. Gill, Suzanne. "Library technology -- bibliography: an annenda (sic) to Andrew Melnyk's bibliography." Toledo, Ohio, n.d. (Mimeographed.)

4. Hoy, E.M. "Training of library technicians, a bibliography." Ontario Library Review, 52 (March, 1968), 19 pp.

5. "Library technical assistants bibliography." North Carolina Libraries. 27 (Spring, 1969), 78-80.
   46 items.

6. Melnyk, A. "Library technology: bibliography, 1950-1968." Journal of Education for Librarianship, 9 (Spring, 1969), 345-350.
   110 items.

7. Munro, June. "Library technicians - a selected bibliography." Ontario Library Review, 53 (June, 1969), 103-108.
   63 items.

*8. Rudnik, Mary Chrysantha, Sister. "Preliminary sources for information about library technical assistants." Chicago, n.d. (Mimeographed.)

9. Sollenberger, Judith K. In-Service training -- a bibliographical essay, revised 1961. Chicago: American Library Association, 1965.
   16 page essay, 182 items.

10. Wheeler, Helen R. "The technician level of staffing: a bibliography with annotations." Special Libraries, 60 (October, 1969), 527-534.
    117 items.

2.0 Library/Media Technical Assistants

2.1 Historical Development

11. Hyatt, Ruth. "Three levels of training." Library Journal, 84 (March 1, 1959), 660-663.
Defines three categories of library staff, clerk, technician, professional librarian. Proposes two-year program for technician.

12. Harlow, Neal. "News of the new founde worlde -- whats new in the education of librarians?" Library Journal, 88 (June 1, 1963), 2189-93.
New problems and demands of librarianship and wasteful use of professional staff. Recommends support from competent group of technical and middle level assistants.

13. Annan, Gertrude. "Library technicians: need, training, potential." Medical Library Association Bulletin, 52 (January, 1964), 72-80.
Summary of library technician situation as of 1964 and comparison to developments in nursing profession. Recommends planned programs for training including standards and certification.

14. Harlow, Neal. "Misused librarians." Library Journal, 90 (April 1, 1965), 1597-99.
Symposium article defines professional responsibilities, types of library work, and specific jobs with goal of better use of professional and non-professional staff.

15. Martinson, John. Vocational training for library technicians: a survey of experience to date. Philadelphia: Institute for Advancement of Medical Communication, 1965. 119 pp.
Study made to determine which institutions were already operating formal programs for library technicians. Gives information on effectiveness, student body, and employment.

16. Bendix, Dorothy, ed. "Library education and the shortage of both manpower and talent." Library Journal, 91 (October 15, 1966), 4881-88.
Reports from a symposium of library school administrators and teachers, a recent library school graduate, and others.

17. Reed, Sarah R. "Library manpower -- realism, relevancy, and requirements." Journal of Education for Librarianship, 7 (Summer, 1966), 43-47.
Recommendations include: (1) identification of kinds and levels of duties performed by non-professional staff members, and, (2) establishment of sound programs for training non-professional library personnel.

18. Shores, Louis. "Statement on junior college library technician programs." LED Newsletter, No. 60 (December, 1966), 4-5.
Prepared in response to request for advice from four Florida junior colleges contemplating or now offering LTA programs.

Recommends limitation on specialized courses in order not to encroach on general education and articulation with both NCATE undergraduate library science recommendations and ALA graduate school standards. Although technician program is usually terminal, courses should not have to be repeated if student continues in higher-level library schools.

19. Conference on Library Technology, 1967, Chicago. Library Technicians: a new kind of needed library worker, a report of a Conference on library technology sponsored by Catonsville Community College. (Chicago, May 26-27, 1967). Washington, D.C.: Communication Service Corp., 1967. ED 017 277, MF - $0.25, HC - $1.32). 28 pp.
Conference considered the role of the library technician and nature of training needed in one and two year institutions.

20. Duchac, Kenneth F. "Manpower -- a proposal." Library Journal, 92 (May 1, 1967), 1797-98.
Recommendations from a meeting of 12 librarians in Philadelphia to discuss personnel shortages in public and school libraries. Reflects opposition to the identification of junior college programs with preparation for librarianship.

21. Genung, Harriett. "Clerical and semi-professional training programs and courses." Southern California Technical Processes Group, Conference, 1967, Library automation, or else? Riverside, California: The Group, 1967. 5 pp.
Workshop of 40 librarians and library technical assistants. Discussion of identity and job analysis of LTAs, clerical and semi-professional training programs at several community colleges, and in-service training. Recommends committee to study position classification.

22. Gummere, Richard M. "Toward a new breed of librarians." Wilson Library Bulletin, 41 (April, 1967), 810-13.
Strong recommendations for institutionalization of clear-cut subprofessional classes to free librarians for full professional work. Includes male-chauvinist argument against domination of profession by "The Weaker Sex."

23. Havens, Shirley. "ALA Conference: Manpower -- the big show." Library Journal, 92 (August, 1967), 2713-19.
Describes 1967 ALA Conference treatment of library manpower and notes that technician and undergraduate programs seemed to be recognized as a reality.

24. Sass, Samuel. "Library technicians -- instant librarians?" Library Journal, 92 (June 1, 1967), 2122-26.
Criticism of two year library technician programs. "Peddlers of educational snake oil are in the process of foisting a phony solution on us." (2126) For comment see:
(1) H.S. White, R.G. Sellers, (letters), Library Journal 92 (August, 1967), 2685.
(2) J.E. Person (letter), Library Journal, 92 (October 15,1967), 3571.

25. Westerman, R.C. "Did I hear you say sub-professional?" Louisiana Library Association Bulletin, 30 (Summer, 1967), 641.
Discussion of terminology and philosophy regarding distinctions between sub-professional, pre-professional, non-professional, and professional.

26. American Library Association. Interdivisional Ad Hoc Committee (Library Education Division and Library Administration Division). "The subprofessional or technical assistant: a statement of definition." ALA Bulletin, 62 (April, 1968), 387-97.
Definitions, classification specifications, and typical duties of technical assistant class of library workers.

27. Asheim, Lester. "Education and manpower for librarianship." ALA Bulletin, 62 (October, 1968), 1096-1106.
Includes definitions and typical duties of technical assistants and library assistants. For discussion of the Asheim report see:
(1) ALA Bulletin, 62 (1968), 1330.
(2) _____, 63 (1969), 23-26, 153-54, 552-53, 705-07.
(3) Southeastern Librarian, 19 (Summer, 1969), 64-81.
(4) American Libraries, 2 (June, 1971), 597-99.
(5) Tennessee Librarian, 24 (Winter, 1972), 7-12.
(6) ALA Bulletin, 62 (December, 1968), 1330 (correction)

28. Bolino, August C. "Trends in library manpower." Wilson Library Bulletin, 43 (November, 1968), 269-78.
Summary of work on the manpower project including data on LTAs.

29. Brooking, Walter J. "Emerging patterns of technician employment with implications for libraries." LED Newsletter, No. 67 (November, 1968), 11-20.
Historical discussion of emergence of technical assistants in various professions, and rationale for developments concerning technicians in libraries.

30. DeHart, Florence E. "U.S. Library technician programs." North American Library Educational Directory and Statistics, 1966-1968, edited by Frank L. Schock. Chicago: American Library Association, 1968. 27-30.
Review of technician programs in U.S. including statistical data on 57 programs -- incomes and expenditures, faculty and teaching load, student enrollment. See also 6s.

31. Gottschalk, Charles M. and Chambers, Helen L. "SOLIT: Librarians to look at newcomer to the Washington area." Chapter Notes, 27 (March, 1968), 35-39.
Describes newly formed Society of Library and Information Technicians (SOLIT) and reviews status of library technology field.

32. Heckart, Rhue, ed. Progress and Prospect: a summary of the proceedings

of the second annual conference of the Council on Library Technology, Toledo, Ohio, (May 23-25, 1968), Council on Library Technology, 1968.

Conference included panel discussions on relationships between professional and paraprofessional library education; curriculum, recruiting, and placement.

33. Leger, J.L. "Library technicians, concerns and actions; report of a workshop for library technician training in community colleges, January 18-19, 1968, San Francisco, California." California School Libraries, 39 (March, 1968), 116-23.

Brief review of activities in California since 1965 on library technician issue. (See No. 65.)

34. Rufsvold, Margaret. "Technical library assistant training in the U.S. -- progress and problems." Library Occurrent, 12 (November, 1968), 319-32.

Brief 'state of the art' review and discussion of unresolved programs - development of unique curriculum for technicians and accreditation standards for libraries.

35. Shores, Louis. "Library technician: a professional opportunity." Special Libraries, 59 (April, 1968), 240-45.

Covers recent developments in library technician field, answers critics of technician programs; describes Tex-Tec project, and discusses articulation between junior colleges, NCATE bachelors programs, and ALA masters programs. For comment see:
(1) S. Sass and M. Bebbington (letters), Special Libraries, 59 (July, 1968), 457.
(2) J. Longland (letter), Special Libraries, 59 (September, 1968).

*36. Steele, Carl L. A survey of the need for library technicians in the area served by Sauk Valley College. A Report presented to the Faculty, Department of Library Science, Northern Illinois University, 1968. Unpublished master's thesis. (See also No. 42.)

37. "Technicians seen emerging as traditional librarians." Library Journal, 93 (July, 1968), 2594.

Notes on a conference at the University of San Francisco which expressed considerable fear of LTAs crowding out professional librarians.

38. "Vocational Education Act offers technician aid in '69." Library Journal, 93 (January 15, 1968), 136.

Guidelines for submission of funding proposals.

39. Astbury, Effie C. "Library technicians and the reference service." Canadian Library Journal, 26 (January - February, 1969), 54-57.

Suggests technicians have only a limited role in reference service since a high level of general education is basic for reference work. For counter opinion, see: M. Bjorgo, Canadian Library Journal, 26 (January - February, 1969), 58-60.

40. Booth, R.E. "Library technicians USA, a review of problems, progress, and prospects." Canadian Library Association, Conference Proceedings, (St. Johns, 1969), The Association, 1970. 50-55.
This address to the Canadian Library Association conference discusses differing viewpoints on career ladders for non-professional library employees and the activities of COLT, Calling for more facts on library technician education and effective utilization of supportive staff in libraries.

41. The Case for library technical assistants and library clerks in Indiana. Lafayette, Indiana: Purdue University, Office of Manpower Studies, 1969. 60 pp. (ED 040 734, MF - $0.65, HC - $3.29.)
Manpower survey of 426 Indiana libraries. Recommendations include:
(1) development of two-year associate program; (2) courses should be transferable for further education; (3) short and night courses and workshops should be offered locally as needed; and, (4) vocational training programs should be established for library clerks and aides. (ERIC Abstract).

42. Steele, Carl L. "Library technicians -- the big controversy." Special Libraries, 60 (January, 1969), 45-49.
Stresses value of local advisory committee as evidenced by first program in Illinois at Sauk Valley College. (See also No. 36).

43. "Library education and manpower; ALA policy proposal." American Libraries, 1 (April, 1970), 341-44.
Policy proposal based on "Education and Manpower for Librarianship" (No. 26)and subsequent discussion.

44. Marks, R. "Library technical assistant programs in Illinois Community Colleges: progress and prospect." Illinois Libraries, 52 (March, 1970), 244-47.
Report on present status of LTA programs in Illinois identifies three problems which must be solved for future development: (1) do librarians in large libraries truly want to relinquish routine functions to supportive personnel; (2) need to appreciate plight of small school and public libraries which can not afford professional librarian; and, (3) necessity of offering LTA the career and rewards he is being promised when he enters the program.

45. "Non-professionals organize in greater Phoenix." Library Journal, 95 (April 15, 1970), 1428.
50 paid members of Arizona Library Assistants want to expand to statewide organization and affiliate with Arizona Library Association.

46. Rudnik, Mary Chrysantha, ed. The coming of age of LTA's; Proceedings of the meeting, Council on Library Technology, June 4-6, 1970, Palm Beach, Florida. Council on Library Technology, 1971. 38 pp. (ED 056 688, MF - $0.65)
Topics of this conference were the actual performance and

use of library technical assistants and the question of certification.

47. Slavens, T. P. and Legg, J. "Experimenting in education for library associates." Journal of Education for Librarianship, 11 (Fall, 1970), 182-85.
General survey of technical assistant training programs. Recommends hiring qualified consultants to establish program, involving potential employers in development, and increased responsibility for graduates.

*48. DeBoard, J. "Receipt (sic) for instant librarians." West Virginia Libraries, 24 (Spring, 1971), 16-17.

2.2 General Background

49. Boyer, Marcia A. and Overall, Jesse. "Paraprofessional training programs in junior colleges." Junior College Research Review, 5 (February, 1971), 4 pp. (ED 045 088, MF - $0.65, HC - $3.29).
Discusses four paraprofessional training programs offered by junior colleges: teacher aide, library technician, social work assistant, and allied health and medical assistant.

50. Bracken, M.C. and Shilling, C.W. Survey of practical training in information science. George Washington University, 1968. 28 pp.
Report of all universities and industrial organizations "known by the authors" to possibly have programs for training of information scientists. Includes levels from certificates through Ph.D Primarily quantitative data. For summary of this report, see: American Documentation, 19 (April, 1968), 113-19.

51. Council on Library Technology (COLT) Newsletter. 1 --, January, 1968 --. C.W. Evans, ed. Univ. of Kentucky, College of Library Science.
Quarterly publication devoted to matters of interest to persons concerned with all phases of library technicians. To be published 11 times a year beginning with volume 6, January, 1973.

52. Dart, Gary and Shell, E.E. "Libraries and job opportunity in the Inland empire." Research in Education, 4 (July, 1969), 71-100.
Survey of library employment market in the San Bernadino area.

53. Egan, Mary Jane and Vellucci, Matthew J. "Personnel training in New York State: A study." New York Library Association Bulletin, 16 (April, 1968), 36-39.
Survey of activities, training programs and Civil Service responsibilities of "paraprofessionals" in New York State.

54. Forsyth, Kenna and Parr, Mary Y. "Library technicians at Drexel."

College and Research Libraries, 27 (March, 1960), 120-22.
Study of Drexel's experience over a five year period in opening the school's four introductory courses to students without college degrees. High drop-out rate was noted, but 1/3 of students did B or better work; 2/3 did C or better work. Study also showed that students working in libraries while in the program had lower grade-point-averages than students working in other positions.

55. Garrison, Karen L. "Library Technology: a survey." COLT Newsletter. Short survey of technician programs conducted in spring, 1972, covering enrollment, faculty, graduates, placement and salary.

56. Grego, Noel R. A Directory of Institutions in the United States and Canada offering or developing courses in library technology. 3d ed. Chicago: Council on Library Technology, 1971. 141 pp.
Data on 134 programs in the U.S. and Canada, includes name, address and telephone number of institution, title of program, year initiated and course numbers, titles, and credit.

57. Grego, Noel R. and Rudnik, Mary Chrysantha, Sister. Job description and certification for library technical assistants. Chicago: Council on Library Technology, 1970. 72 pp. (ED 041 608, MF - $0.65 - HC not available).
Proceedings of two-day regional workshop of COLT. Lists tasks for LTAs and notes the technician must recognize for himself the limits of his responsibility and the limits of authority in his position.

58. Hensley, B.N. "A survey of programs for the training of library technical assistants." Unpublished master's thesis, University of Chicago, 1971. 103 pp.
Comparison of present educational programs for technicians and ALA guidelines.

59. James, J.E. "Library technician program: the library technician graduates' point of view." Special Libraries, 62 (July - August, 1971), 268-78.
Results of a questionnaire sent to 200 of the ascertainable 260 library technician graduates of the 1967-69 period. Questions covered job titles, duties, salary changes, graduates' evaluations, characteristics.

60. Jamieson, Alexis. "Conference on library technology in Baltimore." Ontario Library Review, 70 (March, 1968), 37-38.
Two-day workshop on library technology for representatives of U.S. and Canadian colleges offering programs in this field.

61. Johnson, Dorothy T., ed. Job description and salaries for library technicians: a summary of the proceedings of the first regional workshop, Eastern Division, Council on Library Technology, January

16-17, 1970, Bethlehem, Pennsylvania. Council on Library Technology, 1970. 38 pp. (ED 048 900, MF -$0.65, HC - $3.29).
Goal of this workshop was to gather sufficient information on salaries and job descriptions to present to full COLT membership. Committee to be appointed to study group reports and synthesize acceptable job description and statement of salary.

62. Koryta, R.C. "Community College and undergraduate courses in librarianship." Ohio Library Association Bulletin, 38 (April, 1968), 33.
Argues need of small and medium size public libraries for undergraduate employees with courses in library skills to work with public.

63. Library job descriptions; prepared by the participants in the HEW funded institute "Utilization of Library Manpower." November 29 - December 10, 1971, Graduate School of Librarianship, University of Denver, 1971. 32 pp. (ED 057 827, MF - $0.65, HC - $3.29).
24 job descriptions include: community aide, library technical assistant, library associate and cataloging assistant.

64. Library Survey: A multimedia survey of the community college libraries of the state of Illinois. Chicago: Illinois Library Association, 1970. 164 pp. (ED 044 941, MF - $0.65, HC - $6.58).
This survey includes statistics on programs for training library technicians.

65. Library technology in California Junior Colleges. Papers presented at a conference on the training of library technical assistants, University of San Francisco, January 18-19, 1968. Washington, D.C.: Communication Service Corporation, 1968. 76 pp.
Various points of view from educators and library personnel on library technicians, education and employment. (See also No. 33).

66. Luckenbill, W. Bernard. "The library technical assistant in Louisiana: an analysis of need, attitudes, and potential for future development." Unpublished Ph.D dissertation, Indiana University, 1971.

67. Mangion, M.B. "Need for expanded library education programs." Maine Library Association Bulletin, 30 (May, 1969), 3-5.
Argument for basic library education at vocational technical institutes for persons uninterested or unable to obtain Master's degree but needing some knowledge of library methods.

68. Melnyk, A. "Library technicians for media centers." Illinois Libraries, 51 (April, 1969), 312-17.
Report of library technician audio-visual activities and courses.

69. Nitecki, Joseph Z. "Quality librarianship the day after tomorrow." American Libraries, 1 (February, 1970), 130-31.
Regarding sub-professional staff this article argues for local training and recruiting.

70. Rosenthal, J.A. "Nonprofessionals and cataloguing: a survey of five libraries." Library Resources and Technical Services, 13 (Summer, 1969), 321-31.
Survey of five libraries'(Chicago, Cornell, UCLA, Yale, and University of Utah) use of non-professionals in cataloging and related operations. Cites importance of work organization, training and recruitment practices in success of these programs.

71. Rudnik, Mary Chrysantha, Sister. "What every librarian should know about library technical assistants." Wilson Library Bulletin, 46 (September, 1971), 67-72.
Background article on LTA's and the Council on Library Technology with 11 item bibliography.

72. Strohecker, Edwin C. The Library technical assistant: a report on the orientation institute on the library technician, July 14-25, 1969, Louisville, Kentucky. Spaulding College, 1970. 54 pp. (ED 049 783, MF - $0.65, HC - $3.29)
Purpose of this institute was to provide individuals with introduction to the place of the library technical assistant in college, public school or special libraries.

73. Taylor, Richard L., ed. LTA's: their teachers, their training: proceedings of the Council on Library Technology central region workshop held February 5-6, 1971. 95 pp.
Views and ideas of employers and LTA's about evaluation of LTA education.

74. U.S. Civil Service Commission. Civil Service Handbook X-118. Qualification Standards for Classification Act Positions. Washington, D.C.: Government Printing Office, 1966.
Includes standards for Library Technician Series (GS-1411). (See also Revisions dated December 1968)

75. Tex-Tec Bulletin. No. 1+. Washington, D.C.: Communication Service Corporation.
Irregular bulletin of information about Tex-Tec project. Issues now out-of-print. (See also No. 86, 92).

76. Young, E.L. "Survey of library personnel in Sierra College employment area." Research in Education, 3 (December, 1968), 53-66.
Includes job opportunities for library technicians.

2.3 Education

2.31 Guidelines, Curriculum, and Evaluation

77. American Library Association. Library Education Division. "Criteria for programs to prepare library/media technical assistants." American Libraries, 2 (November, 1971), 1059-1063.

Most recent revision of ALA's criteria development statement on LTA education. For earlier see:
(1) LED Newsletter, No. 53 (March, 1965), 2-3.
(2) LED Newsletter, No. 65 (May, 1968), 14-20.
(3) ALA Bulletin, 63 (June, 1969), 787-94.

78. Bloomberg, M. and Evans, G.E. Introduction to technical services for library technicians. Libraries Unlimited, 1971. 175 pp.
Basic textbook for technical processes.

79. Connecticut Library Association. Committee on training the non-professional. "Guidelines for training the library technical assistant." Connecticut Library Association News and Views, 11 (June, 1969), 10-13.
"It is the view of the committee that a 2-year associate degree course in general education, oriented to the concept of the Library Technical Assistant as a middle member of the library staff, with emphasis on basic knowledge of library techniques, should be the aim of educating for the position of Library Technical Assistant."

80. Daily, J.E. and Myers, M.S. Cataloging for library technical assistants. Washington, D.C. Gryphon House, 1909. 110 pp.
Basic cataloging textbook.

81. Denure, M.E. "A viable curriculum for library technician programs." California School Libraries, 39 (November, 1967), 18-25.
Discusses efforts in California to standardize junior college library technician programs and formation of "Library Public Service Advisory Committee." Includes brief description of suggested curriculum.

*82. Allan, Lawrence A. An evaluation of the community librarians' training courses with special emphasis on the entire training function in the library extension division of the New York State Library. Albany, New York: New York State Library, 1966. 198 pp.

83. Garloch, Lorena A. "The community colleges and the library technician program." Stechert-Hafner Book News, 22 (February, 1968), 81-83.
Report of a study of curricula in 24 programs and suggestions for typical curriculum. Recommends pilot project in one community college with study of the graduates.

84. Guidelines for the development of medical record technician programs in junior colleges. Washington, D.C. American Association of Junior Colleges, 1966. (ED 028 285, MF - $0.65, HC - $3.29).
Guidelines for one and two year programs.

85. Heming, B.G.U. and others. "Junior college training of library technical assistants, a symposium." Texas Library Journal, 44 (Fall, 1968), 90-93+.

General review of programs and explanation of Tex-Tec project. Contains arguments pro and con on subject of LTA training in junior colleges.

86. "Librarians and educators discuss syllabi for Tex-Tec project." Texas Libraries, 30 (Fall, 1968), 112-15.
Discussion of preliminary draft of syllabi for library technician courses to be taught in Texas junior colleges. Syllabi produced by Communication Service Corp., Washington, D.C., under contract with Texas State Library.

87. Library Aides program. Reports, 1967 and 1968. Pittsburg Public Schools, 1967, 1968. 38 pp., 61 pp. (ED 023 423, ED 023 424: Each - MF - $0.65, HC - $3.29).
These two reports evaluate a program initiated to relieve librarians of some non-professional activities. Reports indicate there is no significant difference in professional activities of librarians with or without aides.

88. Library technical assistant: a suggested two-year post high school curriculum. Toledo, Ohio: Toledo University, Community and Technical College, 1971. 430 pp. (ED 063 460, MF - $0.65, HC - $16.45).
"The curriculum described here reflects three basic requirements for any technical position: functional utility, specialized technical skills and provision for their application, and continual broadening of a base of knowledge and skills."

89. Library technical assistant program: guidelines and course content for community college programs. Sacramento, California: Office of the Chancellor, California Community Colleges, 1970. 95 pp.
Includes detailed course outlines, recommended texts, and Audio-visual materials for courses with notes on sources.

*90. Meckley, Richard F. and others. Planning facilities occupational education programs. Columbus, Ohio: Merrill, 1972, 161 pp.

91. New York State University. Commissioner of Education's Committee to Evaluate the Experimental Library Technician Program. Report of the Deputy Commissioner of Education's Evaluation Committee on the experimental library technician program. Albany: State Education Department, New York State Library, 1962.
Committee recommended to discontinue experimental program for teaching library technical assistants at Orange County Community College. Reasons given: (1) there was no clear job market for technicians in library profession, and (2) the profession had not derived a workable definition of the technician function. (See also No. 101).

92. Shores, Louis, comp. The Tex-Tec Syllabi: courses of study for the library technical assistant prepared for the Texas State Library, Washington, DC: Communication Service Corporation, 1968.

Project funded by Texas State Library to provide standardized training program for library technical assistants. Now out-of-print.

93. Special Libraries Association. San Francisco Bay Region Chapter. The Library: an introduction for library assistants. Ed. By William C. Petru, with the assistance of M.W. West. New York: Special Libraries Association, 1967. 79 pp.
Intended as a tool for orientation and training of library assistants. Greater focus on special libraries than other types.

94. Special Libraries Association. San Francisco Bay Region Chapter. Education Committee. "Workshop for library assistants." Special Libraries, 53 (December, 1962), 603-04.
Workshop consisted of four sessions: History of the library, acquisition of library materials, processing of library materials, and library services.

95. "Suggested curriculum for library technician." Kentucky Library Association Bulletin, 35 (January, 1971), 44-45.
Recommendations of the Education Committee of KLA for a two-year library technician curriculum.

96. U.S. Office of Education. Criteria for technician education: a suggested guide.
Guide for establishing quality programs for library technicians. Describes special problems in defining, initiating and operating programs; the required physical and library facilities; the faculty; student selection and services; the curriculum.

97. Wisdom, Aline. "Evaluation of undergraduate library science training in California junior colleges." Unpublished paper prepared at the Graduate Library School of Denver University, 1963.
Evaluation of curriculum and discussion of articulation problems. Particular emphasis on program at Citrus College.

98. Woods, William E. Library technology materials: a bibliography. Chicago City College, 1969. 9 pp.
184 items for a curriculum in library technology. Includes pamphlets, books and periodical titles, and items suggested for initial purchase.

2.32 Individual Programs

99. DePriest, J. "Library technicians program at Mesa Community College." Arizona Librarian, 24 (Winter, 1968), 43-45+.

100. Duvall, B. "Library technician program at Florissant Valley Community College." Missouri Library Association Quarterly, No. 3 (1) (September, 1968), 230-34.

101. Dwyer, William G. "End of an experiment." Library Journal, 88 (October 15, 1962), 3619-622.
An educator's view of the difficulties encountered in a library technology program. Major problem is seen as the unwillingness of librarians to define professional and non-professional duties. (See also No. 91).

102. Earnshaw, Helen. "Starting a two-year curriculum for library assistants." Junior College Journal, 36 (October, 1965), 22-23.
Description of associate of arts degree program at Los Angeles Trade-Technical College begun in 1959.

103. Gebhard, Patricia. "School for ninety-day wonders." Library Journal, 88 (June 1, 1963), 2198-2200.
Four semester program offered by City College of Santa Barbara, California.

104. Headings, Bernice E "Training program for library technicians." College and Research Libraries, 24 (November, 1963), 481-82.
Description of library technology program at Ferris State College (Big Rapids, Michigan). Recommends 56 quarter hours in liberal arts, 16 hours of secretarial training, and 21 hours devoted to library technology. Program began in 1959. (See also No. 107).

105. Hoey, E.L. "Establishing a medical library technology program, the SUNY experience; with course descriptions." Medical Library Association Bulletin, 57 (April, 1969), 151-59.
Joint endeavor of Upstate Medical Center and Onondaga Community College developed and approved by State University of New York and New York State Board of Regents. Curriculum is designed to allow continuation of study towards B.S. degree and includes summer internship at participating medical library. Represents first program designed specifically for medical libraries. Includes bibliography and course descriptions.

*106. MacDonald, Ruth L. The organization, administration and teaching of a course in Library Technology at Erie County Technical Institute. Unpublished master's thesis, University of Buffalo, 1956. 83 pp.

107. Maddox, Lucy J. "Collegiate training for library technicians." Special Libraries, 51 (July-August, 1960), 293-94.
Technician program at Ferris Institute, Big Rapids, Michigan. (See also No. 104).

2.4 The LMTA in Canada

108. Bosa, R. "Present state of the training of library technicians in Quebec." Canadian Library Association, Conference, 1969, St Johns, Proceedings. The Association, 1970. 58-60.

109. Campbell, Allan and Dawson, Irene. The library technician at work: theory and practice. Proceedings of a workshop, Thunder Bay, Ontario, May 8-9, 1970. Canadian Library Association, 1970. 232 pp.

This two day workshop considered: (1) the role of technicians and the type of training needed, (2) evaluation of existing educational programs, and (3) recommendations for standards for courses. Also includes numerous job descriptions for technicians.

*110. Canadian Library Association. Summary of recommendations on library technician courses. Adopted by the CLA/ACB at its conference, June, 1967, Ottawa: The Association, 1967.

*111. Canadian Library Association. Committee on training Library Technicians. Revised Report. Ottawa: The Association, 1967.

*112. Canadian Library Association. Education for Library Manpower Committee. Training for Library Technicians Subcommittee. "Recommendations, June, 1968." Feliciter, 14 (September-November, 1968), 9-13.

113. Education for school librarianship in Canada, Proceedings of a workshop, Alberta, June 8, 1968. Canadian Library Association, 1970. 69 pp.

Workshop included panel discussion on school libraries, library technicians, and library clerks: training and staff relationships.

114. Hallsworth, P.P. "Tri-regional training courses held in Sudbury." Ontario Library Review, 51 (September, 1967), 177-78.

Describes concentrated three-week course for custodians (including technicians) of small community libraries in cataloging, reference tools, and financial reporting.

*115. Institute of Professional Librarians of Ontario. "Library Technicians." Study commissioned by IPLO, 1965. (Mimeographed.)

116. Israel, F.C. "Place of the Ontario "D" certification in Library Education." Ontario Library Review, 49 (November, 1965), 181-82.

"D" certificate course sponsored by Provincial Library Service consisting of 12 weeks of lectures and practical application designed to orient non-professional library staffs serving in isolated rural libraries.

*117. Lakehead University. University Schools Division. School of Library Technology. Course Syllabi. Port Arthur: Lakehead University, 1968. (Mimeographed.)

118. Marshall, John M. "Canadian developments in the training of library technicians." Canadian Library Association, Conference, 1969, St. Johns, Proceedings. The Association, 1970. 55-58.
Summarizes developments in LTA program in Canada and notes three differences between Canadian and U.S. programs: (1) more effective participation by the profession in Canada, giving more influence over content and direction of programs; (2) more uniformity in programs in Canada; and (3) "more concern in Canada for mobility of graduates, hence less emphasis on training for local needs only."

119. _____. "Canadian programs for the training of library technicians." Library Occurrent, 22 (November, 1968), 325-27.
Analyzes seven major weaknesses to be found in maintaining programs and discusses actions to develop nation-wide standards.

120. _____. "Search for status." Library Journal, 91 (November 15, 1966), 5556-563.
Review of library profession in Canada which foresees the inevitable development of library technician class of employee and recommends professional participation in planning and developing programs.

121. Marshall, John M. and Munro, June E. "Summary of a survey of library technician training programs in Alberta, British Columbia, Manitoba, Ontario and Saskatchewan." Feliciter, 18 (October, 1972), 3-16.
Data covers period through January 1972. Tables include length of program, entrance standards, qualifications of course director, library facilities, breakdown between General Education courses and Library Technical, number of graduates, placement, and average salary, and number of graduates expected in 1972, and directory of institutions. This is 4th edition of summary; authors plan annual spring revisions.

*122. Marshall, John M. "The training of library technicians " A brief submitted to the Training Sub-Committee of the Study of Scientific and Technical Information in Canada, Science Secretariat, Privy Council, Ottawa, February 1, 1968. (Mimeographed.)

123. Munro, June E. "Library technician training in Ontario." Ontario Library Review, 70 (March, 1968), 3-5.
Brief review of development of library technician programs in Canada.

124. _____. "Training programs for library technicians." Moccasin Telegraph, 11 (November, 1968), 8-12.
Emphasizes implications for school libraries.

*125. Ontario. Department of Education. Applied Arts and Technology Branch. Ad Hoc Advisory Committee. "Proposed library technician course and programme of studies." 1967. (Mimeographed.)

126. Sudar, Dan D. "Ontario's first library technology course." Ontario Library Review, 52 (March, 1968), 7-11.
Report on Lakehead University Library Technology program begun in 1966. Statistical data, comments on current views of library technicians, and a directory of 7 Ontario courses which train library technicians.

127. _____. "School library and library technician." Index, 1 (Spring, 1968), 30-31.
Discusses possible roles for technician in schools.

128. _____. "Three levels of library education." Library Journal, 91 (October 15, 1966), 4899-903.
Strong argument for library technicians and a division of responsibility in libraries comparable to other professions. Sees major problem in library progress as the inability and/or unwillingness of the profession to recognize the difference between professional and technical duties.

3.0 Types of Libraries

3.1 School Libraries

*129. Dyer, P.E. "A study to identify the role of the media technician in education." Unpublished Ph.D. dissertation, Temple University, Philadelphia, 1969. 122 pp.

130. Ireland, Vera M. Evaluation of the library aide program, 1967-1968. Research and Development Report, Volume 2, Number 8. Atlanta, Georgia: Atlanta Public Schools, 1969. 39pp. (ED 027 930, MF - $0.65, HC - $3.29).
Evaluation of federally funded program developed to relieve librarians of routine clerical and non-professional tasks.

131. National Education Association. Research Division. School library personnel task analysis survey. Chicago: American Library Association, 1969. 91 pp.
In addition to identifying tasks performed by variety of personnel serving in school media centers, also gives nationwide school library statistics.

132. Ramquist, R.C. "Job requirements for media technicians and guidelines for training programs." Unpublished Ph.D. dissertation, Indiana University, Bloomirgton, Ind., 1971. 217 pp.

*133. School Library manpower project. Occupational definitions for school library media personnel. Chicago: American Library Association, 1971. 24 pp.

134. Stott, C.A. "Provision of technical and secretarial assistance in school libraries." School Librarian, 15 (December, 1967), 263-67.

Analysis of best methods to alleviate overload of educational, technical, and administrative work of teacher-librarian in U.K.

135. Wallington, C.J. and others. Jobs in instructional media. National Education Association, Department of Audio-Visual Instruction, 1970. 304 pp.

Functional job analysis of field with emphasis on para-professional personnel. Includes instructional strategies, curriculum planning, and survey of two-year media programs.

136. Whitenack, Carolyn. "And the beat goes on!" School Libraries, 17 (Spring, 1968), 7-9.

Description of the new standards for School Media Programs, being prepared by the American Association of School Librarians and the Department of Audio-Visual Instruction, and the school manpower project, funded by the Knapp Foundation of North Carolina, Inc.

3.2 Public Libraries

137. Kerr, V.P. "Experiencing learning." Journal of Education for Librarianship, 12 (Summer, 1971), 33-39.

Pilot project to determine how easily specially recruited students without bachelor's degree could take courses on graduate level. Two women who were running mini-libraries in Cincinnati's ghetto were chosen to take graduate course in Children's Literature.

138. Montgomery, J.C. "Libraries and the disadvantaged." California Librarian, 30 (January, 1969), 35-41.

Project to get people off welfare and into positions as library technical assistants through a six-month training program.

139. Perillo, A. and St. Clair, Jean. "Crash program plus giveaways." Library Journal, 91 (January 15, 1966), 340.

Use of non-professional personnel for Operation Head Start picture-book programs in public library branches.

140. Public Library Association. Minimum Standards for Public Library Systems, 1966. Chicago: American Library Association, 1967. 80 pp.

Includes standards for maintaining sufficient personnel at all levels of library work.

141. "Salary guide for intermediate and non-professional positions for 1969." New Jersey Libraries, 1 (Summer, 1968), 59-60.
Lists three levels of non-professional positions for public libraries -- junior library assistant, senior library assistant, supervising library assistant -- with typical duties and requirements.

3.3 College and University Libraries

142. Dawson, John M. "Not too academic." College and Research Libraries, 27 (January, 1966), 37-39+.
Discussion of the potential for using non-professional employees in cataloging, classification, bibliographic searching, reference, inter-library loan, and circulation in academic libraries.

143. Downs, Robert B. and Delzell, Robert F. "Professional duties in university libraries." College and Research Libraries, 26 (January, 1965), 30-39.
In addition to analyzing professional duties, article deals with role of sub-professional worker in libraries.

144. Muller, R.H. "Principles governing the employment of non-professional personnel in university libraries." Branscombe, L., ed., Case for faculty status for academic librarians. Chicago: American Library Association, 1970. 104-06.

3.4 Special Libraries

145. Annual Military Librarian's Workshop, Library Employee Development. 10th, San Diego, California, October 12-14, 1966. Proceedings. San Diego, California: Navy Electronic Laboratory, 1966.
Discussion of on-the-job and in-service training for subprofessional staff. Federal Library Committee urged to work toward securing more uniform interpretation of civil service standards for librarian, library technician, and information specialist.

146. Ferguson, Elizabeth. "New York chapter experiment in subprofessional training." Special Libraries, 40 (November, 1949), 358-61.
Development of courses in library clerical practice at the Ballard School, Manhattan.

147. Ferguson, Elizabeth. "Through the preprofessional training maze; to the Ballard School with gun and camera." Special Libraries, 60 (February, 1969), 94.
Reviews contributions of SLA's New York Chapter since 1948 to training nonprofessional library staff.

148. Green, C. "Non-professional library workers in the science libraries in industry." Special Libraries, 6 (October, 1970), 453-59.
Survey of current conditions of non-professionals in industry science libraries in Greater New York. Stresses value of community college training, roleof the worker, qualifications, staff utilization, and management evaluation of manpower needs.

149. Lake, R.E. "The organization, administration and teaching of a course in library technology at Erie County Technical Institute." Unpublished master's thesis, University of Buffalo, Buffalo, 1956. 76 pp.
This program focused on preparation for work in special libraries.

150. Langer, Mildred C. "Training for library technicians." Medical Library Association Bulletin, 55 (January, 1967), 93-94.
Review of library technicians in medical libraries. Comparison to other professions in medical field who have accepted sub-professional employees.

151. Medical Library Association. "Official statement on the training of medical library technicians." Medical Library Association Bulletin, 55 (October, 1967), 510.
Recommendation for associate degree programs to train technicians, aides, and clerks.

152. Meyer, Robert S. "Library technician training programs and special libraries." Special Libraries, 59 (July-August, 1968), 453-510.
Suggestions for ways in which SLA could influence and aid developing programs for library technicians.

153. Nicholson, Natalie N. "A librarian flies to learn." Special Libraries, 52 (July-August, 1961), 300-02.
Report on training course offered by the Boston Science-Tech Group, an association of special librarians, for new, non-professional librarians which interested a large number of applicants.

154. Rothenberg, L and others. "Investigation of the educational needs of health sciences library manpower: characteristics of manpower in health sciences libraries." Medical Library Association Bulletin, 59 (January, 1971), 31-40.
Statistical data based on mail survey of personnel in 2099 health sciences libraries.

155. Sherrod, John. "The new program for training information technicians

at the U.S. Department of Agriculture Graduate School." Automation and Scientific Communication, Proceedings of the 26th Annual meeting of the American Documentation Institute, October, 1963, Chicago, Illinois. 327-28.

Program of study consisting of non-professional, library and documentation courses. Courses give background and training for sub-professional assistant and others whose work requires a knowledge of information techniques.

156. Yost, H.T. "Report of the Ad Hoc committee on standards for medical library technician training." Medical Library Association Bulletin, 58 (April, 1970), 266-68.

Definition of medical library technician, two-page analysis of duties, criteria for medical library technician programs, and curricula.

4.0 Supplement

1s. Ayers, Jerry B. Library staff needs in Southern Appalachian schools. Final Report. Cookeville, Tenn.: Tennessee Technological University, 1972. 172 pp. (ED 063 967, MF $0.65, HC $6.58).

Study to determine status and role of librarians, library paraprofessionals, and aides in Southern Appalachian region including future employment needs.

2s. Gardner, Kathryn L. "Library technicians: from a student's view," Utah Libraries, 15 (Spring, 1972), 19-21.

Enthusiastic description of several technician courses in Brigham Young University Library Technician program; includes description of curriculum.

3s. Hadley, Judy. "Trials of a paraprofessional," Synergy, No. 33 (Summer, 1971), 17-20.

Critical view of academic library staffing and personnel situations; emphasizes poor communication from management to paraprofessionals, clerks, and student assistants. (Also printed in Revolting Librarians, West, Celeste and Katz, Elizabeth, eds., San Francisco: Booklegger Press, 1972. 77-81.)

4s. Hill, William M "Library technical assistant program at Caldwell Technical Institute," North Carolina Libraries 28 (Spring, 1971), 57-65.

Substantial report on program at Caldwell Technical Institute, manpower situation in North Carolina for library technicians, and 58 item bibliography.

*5s. Johnson, W Dunne. "A comparative analysis of personnel in Indiana school library media centers, 1970-71," Doctoral dissertation in progress, Indiana University, 1972.

6s. Kortendick, James J and Stone, E.W. "Education needs of federal librarians," Drexel Library Quarterly, 6 (July-October, 1970), 264-278.

7s. Little, Robert D "Library technical assitant programs," in Schick, F.L. and Weintraub, D.K., eds. North American Library directory and statistics, 1969-71. Chicago: American Library Association, 1972. pp. 32-35.
Updates survey data in item 30.

*8s. Lynch, Beverly P. "Library technology; the comparison of tasks performed in five functional departments." Ph.D. dissertation in progress, University of Wisconsin, 1971.

*9s. Mugnier, Charlotte. "The library associate: a study of high-level supportive personnel in public libraries." Ph.D. dissertation in progress, Columbia University, 1971.

*10s. O'Brien, Philip. "Attitudes of professional librarians toward library technicians in the Pacific Coast states." Ph.D. dissertation in progress, University of Southern California, 1972.

11s. Poole, Herbert. "What needs to be known about the library technical assistant." Southeastern Librarian, 21 (Summer, 1971), 123-28.
Report of a study by three small liberal arts colleges in Greensboro, North Carolina to investigate advisability of establishing a technical assistant training program. 176 libraries in the state were surveyed (school libraries omitted) with 40 per cent return rate on questionnaires. Survey concluded limited number of programs was needed but logical place for these programs would be state-supported technical institutes, not the Greensboro coleeges.

12s. Reed, Sarah R. "Library education in Canada," in Schick, F.L. and Weintraub, D.K., eds. North American Library Education directory and statistics, 1969-1971. Chicago; American Library Association, 1972. 36-41.
Includes data on 20 library technical assistant programs in Canada.

13s. Soper, Sharlene. "Library technicians: a graduate's view." Utah Libraries, 15 (Spring, 1972), 18.
Recent graduate describes job of day-to-day supervision of ILL department at Brigham Young University Library under overall directionoof a librarian.

14s. Trimby, Madeline J "The coming of age of library technicians." Michigan Librarian, 36 (Autumn, 1970), 11-13.

Description of successful library technology program at Ferris State College, originally begun in 1959. Some important factors in a successful program seen as: 1) instruction in a library facility; 2) broad foundation in general education; extensive required library cooperative work experience; and, 3) enthusiastic advisory committee. (See also Nos. 104 and 107.)

15s. Wolfe, Rose K. "A vote for library technicians." Library Occurrent, 22 (November, 1968), 328-30.

Argument for a restructured career ladder in the library profession with the Library Technician as first step on this ladder as best method to develop quality library service. Comparison made to career ladder in education beginning with provisional teachers with two years of college education.

Author Index

Allan, L. 82

American Library Association 26, 77

Annan, G. 13

Asheim, L. 27

Astbury, E. 39

Ayers, J. 1s

Bendix, D. 16

Bloomberg, M. 78

Boelki, J. 1

Bolino, A. 28

Booth, R. 40

Bosa, R. 108

Boyer, M. 49

Bracken, M. 50

Brooking, W. 29

Campbell, A. 109

Canadian Library Association 110, 111, 112

Chambers, H. 31

Connecticut Library Association 79

Council on Library Technology (COLT) 51

Daily, J. 80

Dart, G. 52

Dawson, I. 109

Dawson, J. 142

DeBoard, J 48

DeHart, F. 30

Delzell, R. 143

Denure, M. 81

DePriest, J. 99

Downs, R. 143

Duchac, K. 20

Duvall, B. 100

Dwyer, W. 101

Dyer, P. 129

Earnshaw, H. 102

Egan, M. 53

Evans, C. 51

Evans, G. 80

Ferguson, E. 146, 147

Forsyth, K. 55

Gardner, K. 2s

Garloch, L. 83

Garrison, K. 55

Gebhard, P. 103

Genung, H. 21

Giles, F. 2

Gill, S. 3

Gottschalk, C. 31

Green, C. 148

Grego, N. 56, 57

Gummere, R. 22

Hadley, J. 3s

Hallsworth, P. 114

Harlow, N. 12, 14

Havens, S. 23

Headings, B. 104

Heckart, R. 32

Heming, B. 85

Hensley, B. 58

Hill, W. 4s

Hoey, E. 105

[illegible]y, E. 4

Hyatt, R. 11

Ireland, V. 130

Israel, F. 116

James, J. 59

Jamieson, A. 60

Johnson, D. 61

Johnson, W. 5s

Kerr, V. 137

Kortendick, J. 6s

Koryta, R. 62

Lake, R. 149

Langer, M. 150

Legg J. 47

Leger, J. 33

Little, R. 7s

Luckenbill, W. 66

Lynch, B. 8s

MacDonald, R. 106

Maddox, L. 107

Mangion, M. 67

Marks, R. 44

Marshall, J. 118, 119, 120, 121, 122

Martinson, J. 15

Meckley, R. 90

Melnyk, A. 6, 68

Meyer, R. 152

Montgomery, J. 138

Mugnier, C. 9s

Muller, R. 144

Munro, J. 7, 123, 124

Myers, M. 80

National Education Association 131

Nicholson, N. 153

Nitecki, J. 69

O'Brien, P. 10s

Overall, J. 49

Parr, M. 54

Perillo, A. 139

Petru, W. 93

Poole, H. 11s

Ramquist, R. 132

Reed, S. 17, 12s

Rosenthal, J. 70

Rothenberg, L. 154

Rudnik, M. 8, 46, 57, 71

Rufsvold, M. 34

St. Clair, J. 139

Sass, S. 24

Shell, E. 52

Sherrod, J. 155

Shores, L. 18, 35, 92

Shilling, C. 50

Slavens, T. 47

Sollenberger, J. 9

Soper, S. 13s

Steele, C. 36, 42

Stone, E.W. 6s

Stott, C. 134

Strohecker, E. 72

Sudar, D. 126, 127, 128

Taylor, R. 73

Trimby, M. 14s

Vellucci, M. 53

Wallington, C. 135

West, M. 95

Westerman, R. 25

Wheeler, H. 10

Whitenack, C. 136

Wisdom, A. 97

Wolfe, R. 15s

Woods, W. 98

Yost, H. 156

Young, E. 76